The Iron Age

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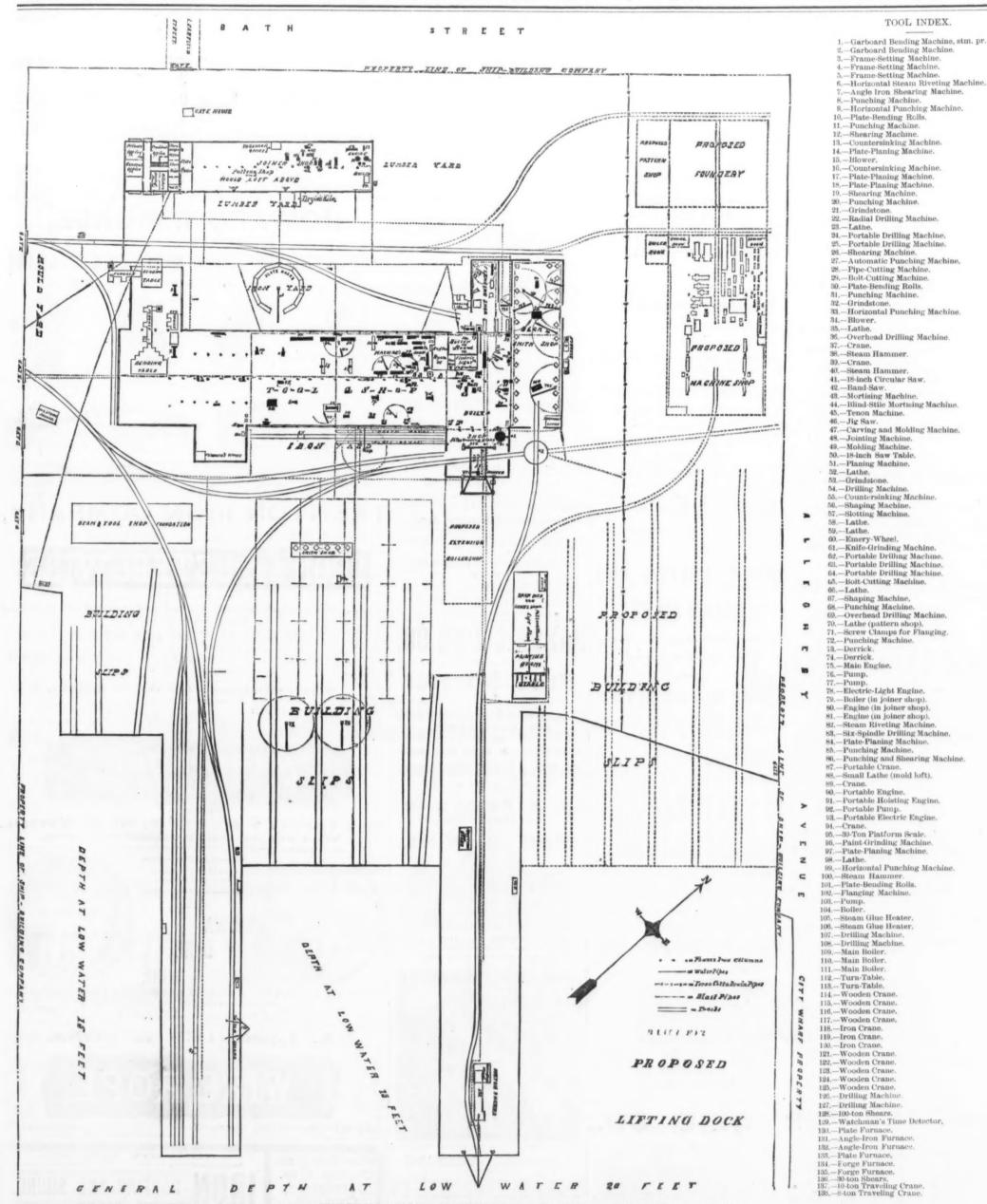
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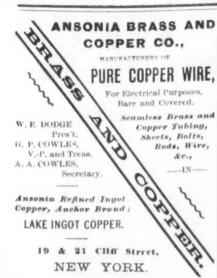
New York, Thursday, March 27, 1884.

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(For Descriptive Matter and Plan of Old Yard See Page 19.)



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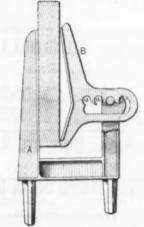
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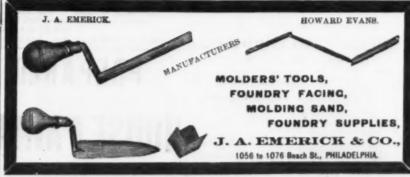
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A patent has been obtained by F. H Daniels, of Worcester, Mass., for a machine for making wire rods. The object of this invention is to construct a rolling mill of increased capacity, operating on the con-tinuous rolling system, whereby wire rods can be produced in great quantity and of small sizes when desired, and which is sufficiently automatic in its action to be managed ciently automatic in its action to be managed by a comparatively small number of attend-ants. The primary train of rolls, numbering 10 pairs, is located in front of the heating furnace and receives the heated billets of metal. The train is operated by an engine running at uniform speed. From the primary rolls the rods pass to an adjustable guide or switch, and from thence to a large metal platform or distributing table. In the surface of this table are guide channels that diverge to the right and left and terminate in funnel-shaped delivery tubes. From these tubes the wire rods pass upon one of two secondary trains of rolls operated by inde-pendent engines running at variable speed if desired. Each train of secondary rolls has a reeling device for receiving the product.

Bed-springs are cut and the two ends shaped into a hook and L, respectively, by a machine recently patented by B. E. Ball, of Denver, Col. Upon a table is mounted a horizontal bed-plate, to which one jaw is securely fixed and the other pivoted. The fixed jaw has a projecting cutter and a shaper, while the movable jaw has a corresponding cutter and shaper. ponding cutter and shaper. The table is mounted in close proximity to a cone, which forms the spiral and delivers the coiled wire across the bed-plate and between the jaws. The movable jaw is first brought forward by a treadle and the wire severed. The completed stroke will shape one end of the spring into a hook and the other end into an L.

A new form of removable saw teeth has been patented by E. Harris, of Quincy, Ill. The back of the removable tooth is made with a longitudinal groove having tapering sides, and fitting over a corresponding tapering projection on the face of the solid saw-blade tooth. The lower end of the tooth has two lugs or ears adapted to engage with corresponding depressions in the blade of the saw. At the upper end the projection is cut away and constitutes a locking shoulder, which will set the tooth in such a way as to cause its upper edge to correspond with the inclination of the solid teeth.

A ripping attachment for scissors recently patented consists of a knife casing fastened to the inner edge of one of the handles and to the handle loop. Within the casing is an ordinary folding ripping blade and a spring, like a pocket knife. If the scissors are to be used for ripping, the scissor blades are opened so that their cutting edges are as far apart as possible. The knife is now opened, the blade projecting from the end of the handle to which it is secured. The attach-ment does not interfere with the use of the scissors, as it is very compact. The improve-ment is the invention of F. S. Loockerman, of Manokin, Md.

A pig-iron breaker of novel construction has recently been constructed by T. A. Blake, of New Haven, Conn. It consists of vo stationary jaws against which the pig is laid, and of a rear movable jaw bearing against the pig half way between the fixed jaws. The bed of the machine is made with a small chamber in front of and between the fixed jaws, into which the workman steps. In this way a single laborer may introduce the pig to the machine, whereas two men would be required if the pig were introduced over the end of the frame. The broken pig falls either to the right and left or within the central chamber.

A machine for making barbed wire formed A machine for making barbed wire formed of a single-strand wire with crimps at suitable intervals, and with short pieces of pointed wire on said crimps, has been patented by L. E. Sunderland, of Joliet, Ill. The strand wire passes first between a pair of tension or straightening dies, and is then grasped by the crimping dies, which form the bends. The barbed wire is next cut and coiled on the strand wire, and then passes under a press to cause the prods of the barbs under a press to cause the prods of the barbs to point in the proper direction and to straighten them. The finished wire is wound on a spool which is arranged to prevent any sudden ierk or iar, and which gives the proper strain to the wire.

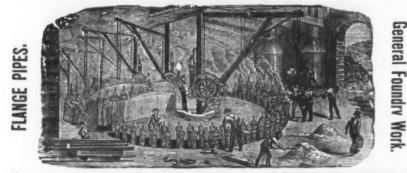
The Walker Smokeless Furnace Company, of Boston, Mass., is the patentee of a new damper to close the outlets of furnaces. The damper is designed more especially for boiler furnaces in which two separate fires are placed—one at each end of the boiler—and in which, by means of the dampers, the smoke and gas generated in one fire are made to pass over the other fire. The object of the invention is to keep the damper from leaking around the edges when it is in place, even when it may have become warped by the heat. The damper has a beveled flange on one side, and is concave on the other side for holding a refractory sand packing. The upper damper seat has a similar flange, while the lower seat has also a sand packing, and thus these beveled flanges will penetrate the sand to a greater or less depth, according to the bends or warps, and thereby pre-vent any leakage of gas between the damper and its seats.

A locking device for preventing the blade of a screw-driver from turning in its handle is the invention of G. E. Gay and J. H. Parsons, of Augusta, Me. The handle is bored transversely near its top to receive a metallic cylindrical sleeve having a hole at the top and bottom in line with the longitudinal bore of the handle. The shank of the blade passes through these two holes. the blade passes through these two holes. A key or lug on the cylinder enters a corresponding groove of the blade shank, and thus locks the latter properly in place.

E. C. Atkins, of Indianapolis, Ind., has invented a cross-cut saw designed particu-larly to be used by two persons, one at each end, in felling trees. The object of the im-

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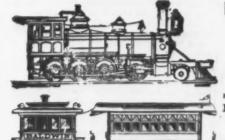
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provement is to produce a saw that shall not be liable to be pinched in the saw kerf, and at the same time be sufficiently stiff to prevent sagging and bending when in use. The vent sagging and bending when in use. The cutting edge of the saw is convex and the back concave, the relative radii of the curves being such that the saw blade is wider at the ends than at the center. The central portion of the saw, which is the part that does most of the cutting, being narrow, is not so liable to be pinched and caught in the saw kerf as the ordinary wide blade. the saw kerf as the ordinary wide blade.

& L. P. Woodward, of Delano, Minn. are the patentees of a shingling bracket to be attached to a roof between the shingles and adapted to support a board upon which the workman may rest while shingling. The device comprises two lever arms pivoted together at one end, and held a suitable distance apart at their other end by means of a curved connecting piece. This connecting piece is rigidly attached to one lever, and by a bolt-and-eye connection adjustable to the other lever. Thus the bracket may be adjusted for roofs of different pitch. The de-vice has also a toothed extension and other smaller attachments for holding it to the roof. Two of these brackets are attached to the roof in line horizontally and a board placed over them.

A scaffolding bracket for use in rooms or on A scandding bracket for use in rooms or on roofs of buildings, or for erecting temporary platforms, has been patented by M. N. Kuight, of Skowhegan, Me. An upright is provided with a long longitudinal slot at the top notche at regular intervals. An inclined brace leans against the upright, to whose upper end is pivoted a staple, passing through the electrons and adverted to be vived. whose upper end is pivoted a staple, passing through the slot and adapted to be moved up and down within the same. The inclination of the brace may be adjusted by slipping the staple into a higher or lower notch. To prevent the bracket from spreading, its legs are connected at or near their base by a chain carrying at each end an iron link that may be slipped, we and down and then leaked in be slipped up and down and then locked in place. At the foot the upright and brace are connected to the floor by pointed angle

L. H. Goodwin, of Cincinnati, Ohio, is the I. H. Goodwin, of Cincinnati, Ohio, is the patentee of a light iron wheel intended more particularly for wheelbarrows. The hub consists of a central disk, notched radially to receive the spokes, and is flanked at each side by a face-plate. These face-plates are made of cast metal and have on their inner faces half round or V-shaped rings or beads which bear against the spokes and force them outward against the tire, thus securing the parts rigidly together. The spokes are made of flat har iron and have tenons at made of flat bar iron and have tenons at their outer ends which enter mortises in the tire. After the spokes are inserted in the tire the central hub disk is placed in position with the inner ends of the spokes in its ra-dial notches. The face-plates are then screwed against the disk until it and the spokes are firmly clamped between the two

A new mincing knife has been invented by R. J. Victor, of Hudsondale, Pa. It con-sists of three triangular blades slotted from their apex downward, and slipped over and interlocked with one another so as to form six radial cutters, a handle being fastened to their apex. Each cutter thus formed increases in width from the handle downward, and the base is sharpened to form the cut-ting edge. The radial arrangement of the knives is intended to prevent the minced substance from adhering to the blades.

A novel feed mechanism for roller mills is the invention of N. W. Holt, of Buffalo. N. Y. The hopper is placed above the crushing or grinding rollers, and is provided at its mouth with a feed-gate which regulates the amount of material delivered. The feed-gate reciprocates laterally, and has pins or stude projecting from its face which disintegrate or loosen the material. The reciprocating movement, assisted by the pins, distributes the material evenly over the entire length of the feed roller, and prevents it from adhering and forming ridges thereon, as some-A novel feed mechanism for roller mills is ing and forming ridges thereon, as some-times happens when fuzzy or adhesive articles are operated upon.

return of the wagon.

which possesses several points of novelty. Heretofore it has been the usual practice to posed to insert an additional rod, passing through both jaws beneath the ratchet shaft. BRIDGEWATERIRON CO., Bridgewater, Mass.

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The jaw is then free to slide in either direction. When set to the desired position, relieve the disengaging rod, and it will be instantly snapped back by the spring and again carry the pawl to engage with the ratchet shaft. The hand-lever is next turned in the customary manner to clamp or release the work. This bench vise is patented by J. Thompson, of Brooklyn, N. Y.

It is a noteworthy fact that none of the companies have ever put forward any statistics.

Boiler Insurance

The London Engineer, in a recent issue, speaking of steam boiler insurance, shows that the systems of some English companies need improvement. We quote as follows:

If boilers, continue to explode it is not for lack of facilities for their competent inspection, since in return for moderate payments steam years can have their boilers.

payments steam users can have their boilers examined by competent men who will tell them whether they are or are not safe, and, if not safe, how they can be made so. The reports sent in by inspectors to engineers-in-chief of boiler inspection and assurance companies are, as a rule, perfect models of what such papers ought to be. They leave practically nothing to be desired. It is a question, however, whether action is always taken upon them, and we propose here to consider an aspect of boiler insurance which does not receive quite as much attention as it deserves.

It is very much to be desired that boiler insurance companies should be perfectly independent. If they are not, then their policy cannot fail to be warped and strained. There is much reason, however, to fear that nothing like absolute independence is posse by any of the numerous companies w officers now pronounce on the condition of boilers, and this fact may go far to limit the usefulness of the system. When boiler insurance and inspection were first started many years ago under Fairbairn's auspices, there was no competition, but for a considerable period competition has been severely felt by the insurance companies which now exist in considerable numbers. These companies, instead of confining their operations to given districts, peach on each other's preserves, and, when two companies compete for a given boiler or boilers, risks are frequently taken which neither company would dream of accepting were it not for the other. In such an article as this it is obother. In such an article as this it is obviously impossible for us to give the names of particular companies, and we may add that what we have to say applies to all boiler insurance, assurance and inspection companies alike. We single out none. What is true of one is, so far as we can ascertain, true of all. This point being, as we hope, made quite clear, we may go on to say that boilers which are really unfit for service are insured, and that factors of safety of as little as 11/2 to 1 are accepted as sufficient. We do not say that accepted as sufficient. We do not say that this is an invariable practice. It often happens, nevertheless, and it happens in this way: A proposal for insurance is made to a given company. The inspector comes down, examines, and sends in an adverse report. The reply of the boiler owner is that he is sorry to find that the boiler cannot be insured. sured by the company in question; that, however, he has no doubt it can be insured by another company, which he names. Then the first report is reconsidered; certain patches are perhaps put on the boiler here and there, the safety-valve load is reduced a pound or two, and the boiler is accepted for pound or two, and the boiler is accepted for a year. Anything, in fact, is done rather than let the rival company in. It must be a very bad boiler indeed that cannot at this moment be insured somewhere. It must not be forgotten that this system is entirely opposed to the wish of the engineers and inspectors of the companies. They have really no choice in the matter. Apparently free agents, they are virtually bound to do that which will please the directors and bring in business. usiness. It may be said that boiler insurance cannot be so bad a thing as we would make out, because so few insured boilers explode. Now, it so happens that we are not trying to make out that boiler insurance is bad—on the con-

whole system will be shaken, and in the end the companies will be ruined. We have no hesitation in saying that there are dozens of boilers insured now which ought not to be insured. It may be urged that this is purely A wire stretcher for delivering barbed that the losses by any explosions that take A wire stretcher for delivering barbed wire for attaching to the posts in fence building has been invented by W. H. & J. W. Bliss, of Hamilton, Mo. The frame of the apparatus is fastened on the wagon-box crosswise, and is provided with the usual reel and with a tension device. A sliding repay. With insurance examples alone, we observe nothing to do: but insure reel and with a tension device. A sliding extension carries two cylindrical guides or eyes, through which the wire passes. These eyes are funnel shaped, and are swiveled to their supports to allow them to turn as the wire may incline. In case a ravine or other place is encountered that cannot be crossed by the wagon, the reel and wire may be taken out and carried along by hand. After the wagon has passed along the fence in one direction, the sliding extension is applied to the other end of the frame, and thus the second wire may be delivered during the return of the wagon. sured boiler exploded. The responsibility A bench vise has been lately constructed company. Now, the insurance companies owe a duty to the public, which is that the guarantee which they supply shall be really move the movable jaws slowly backward trustworthy. So long as the companies prac-and forward by turning the hand-lever, and considerable time was thus lost. It is pro-posed to insert an additional rod, passing through both jaws beneath the ratchet shaft. from us. But inspection being combined The fixed jaw has bearings through which this rod passes loosely. The movable jaw is altered, and nothing more objectionable has a circular well or mortise that contains a spring which presses with one end upon the rod, while the other end bears against a hollow nut encircling the end of the ratchet of cases in which inspectors were told not to that. To adjust the jaw of the vice it is inspect premely—that is rigorously—lest a nonow nut encircing the end of the ratchet of cases in which inspectors were told not to shaft. To adjust the jaw of the vise, it is imspect properly—that is, rigorously—lest a simply necessary to grasp the hand-lever and raise the rod upward with the finger, as cepted. Such an event is, we have no in grasping and firing a pistol. This disengages the pawl from the ratchet shaft, and the jaw is then free to slide in either direction. When set to the desired resistor re-



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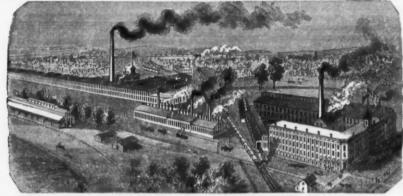
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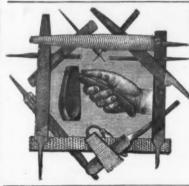


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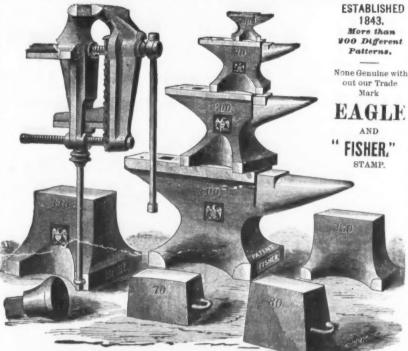
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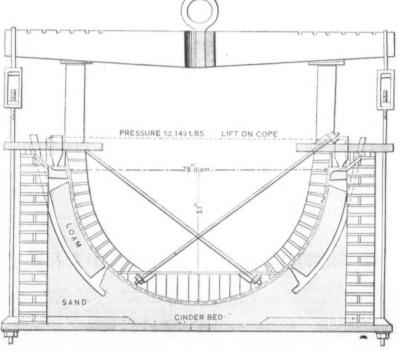
ties to prove that the practice of insurance has decreased the number of boiler explo-sions. There are not wanting, indeed, per-sons who say that the system never yet prevented an explosion. We need not say that from this statement we entirely dissent. Among the other subjects over which boiler companies quarrel is the propriety of insuring a boiler at all. Into such a dispute we can ot enter, nor has this article anything to do with such questions. It is intended to maintain that boiler insurance companies should come to some understanding, either among themselves or otherwise, that they will not, by accepting insurances on defective boilers,

was naturally much smaller. It remains to be seen whether or no the present scheme can be made a success, and further developments bearing upon it will be watched with much interest.

Foundry Hydraulics.-II.

BY T. H. RADCLIFF.

Continuing the subject of foundry hydraucome to some understanding, either among themselves or otherwise, that they will not, by accepting insurances on defective boilers, give substantial guarantees of safety when they ought not to be given. In this matter honesty is above all things necessary, and if boiler companies sacrifice it in the pursuit of business they will have cause to repent it sooner or later. Need we add that the steam



Foundry Hydraulics .- Fig. 1. - Section of Mold for a Kettle

user who insists on working his boilers after he has been warned that they are unsafe can by no means shift his responsibility on to the shoulders of a weak-kneed insurance company? At least, right-thinking men will hold that he cannot. The majority of steam users are, we may add, far too exacting and expect far too much for their money. It is difficult under the circumstances for companies to be as independent as it is imperative that they should be. Indeed, the sums now

nies to be as independent as it is imperative that they should be. Indeed, the sums now prid for insurance are so small that they can scarcely pay for adequate inspection, to say nothing of risks.

The proposal of the Compressed Air Power Company, of Birmingham, England, to supply certain sections of the city with compressed air for power purposes, as a substitute for steam and gas, seems to have been regarded very favorably, and out of the horizontal surface of the casting in the cope and the distance to the top of the gates. After a little practice with this rule, any one of reasonable judgment can tell at sight, approximately, what the pressure on a mold will be, thereby saving the time and trouble to figure it up, except in cases of large and complicated castings, when it is always best to know the exact figure. The bottom part of this kettle is one-half of a sphere 78 inches in diameter. The rule for

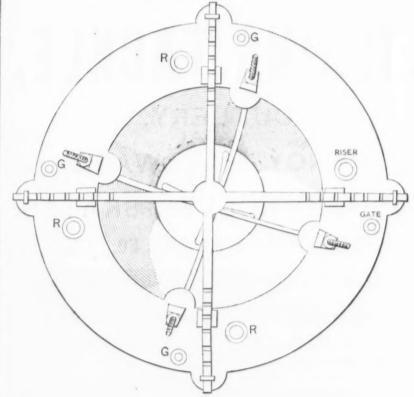


Fig. 2.—Top View of Fig. 1.

270 power users consulted, 170 have declared | finding the contents of a sphere is to multiply 270 power users consulted, 170 have declared the moders of the scheme urge that, under their ward be used for ventilation. It is also labeled to the above. Then, 90° to moderate the moderate of the scheme urge that, under their system of supply, compressed air is, for engines under 30 horse-power, cheaper than steam, especially when power is to be used intermittently, and that the air can afterward be used for ventilation. It is also labeled to the above. Then, 90° the moderate of the diameter of the diameter of the diameter ward to be used for ventilation. It is also labeled to the above. Then, 90° the moderate of the diameter is to multiply the cube of the diameter by .5236. We then have 78° 3 × .5236 + 2 × .26 pounds = 32.301 pounds, for the weight of one-half the sphere of inches in diameter. We have, besides, a piece of iron equal to the outside diameter of the diameter by .5236. We then have 78° 3 × .5236 + 2 × .26 pounds = 32.301 pounds, for the weight of one-half the sphere of inches in diameter. We have, besides, a piece of iron equal to the outside diameter of the classification of the contents of a sphere is to multiply the cube of the diameter by .5236. We then have 78° 3 × .5236 + 2 × .26 pounds = 32.301 pounds, for the weight of one-half the sphere of inches in diameter. We have, besides, a piece of iron equal to the outside diameter of the pounds, for the weight of one-half the sphere of the diameter by .5236. We then have 78° 3 × .5236 + 2 × .26 pounds = 32.301 pounds, for the weight of one-half the sphere of the diameter. We have, besides, a piece of iron equal to the outside diameter of the pounds, for the weight of one-half the sphere of the pounds, for the weight of one-half the sphere of the pounds, for the weight of one-half the sphere of the pounds, for the weight of one-half the sphere of the pounds of the po ward be used for ventilation. It is also claimed to be 20 per cent. cheaper than gas. Though the correctness of this assumption has not yet been satisfactorily demonstrated, there is no doubt that the compressed air, as compared with gas, offers the advantage of necessitating no change in the existing types of steam engines, and those who contemplate giving the system a trial will consequently not be called upon to make expensive alterations. The compressed air will be supplied from a common center by mains, and the system, to a certain extent, resembles that proposed some time since in Paris, in which case, however, the working fluid was not compressed, but rarefied, air, and the power capable of being developed

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FIRST, to surrender and deliver to the Attorneys for the said John Wilson, all knives now on hand, and in my possession, or under my control, bearing the said imitation trade-mark, and

SECOND, I further undertake and agree to and with the said John Wilson, and his legal representatives, not to manufacture or sell, or cause to be manufactured or sold, at any time in the future. Knivos or other Cutlery, bearing his trade-mark aforesaid or any imitation or simulation thereof. IN WITNESS WHEREOF. I have hereunto set my hand and seal at West Mansfield, aforesaid, this thirty-first day of May, 1889.

WITNESS:—
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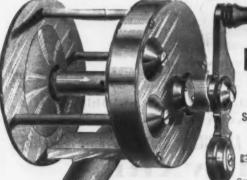
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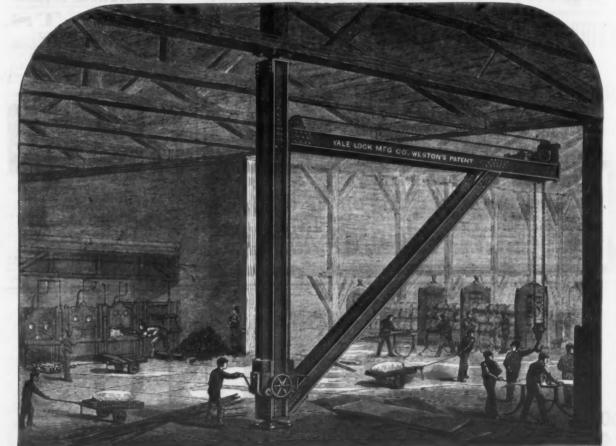
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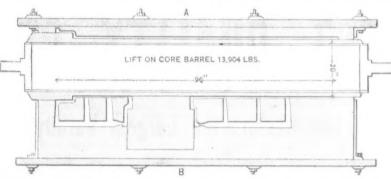
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24: the flange is 6 inches wide, with 8 inches added to the hight for gates. The lift on the cope is equal to the weight of a piece of iron as shown by the dotted lines. The pressure on the sides is equal to the side surface multiplied by the vertical hight from the top of the gates to the center of gravity of the mold. And the pressure on the bottom is equal to the bottom surface to the top of the gates, multiplied by the weight of a cubic inch of iron. We then have for the cope 72" × 24" × 23" × .26 pound = 10,333 pounds, the lift to the bottom of the flange, to which is added a piece having the outside dimensions of the flange, 87" × 39", and 9 inches deep, 8 inches being for gates and 1 inch for thickness of flange. Then 87" × 39" × .26 pound = 7939 pounds, which, added to 10,333 pounds, = 18,273 pounds, which is the lift on the cope.



Foundry Hydraulics.-Fig. 3.-Section of Mold for a 20-inch Hub and Spigot Tee

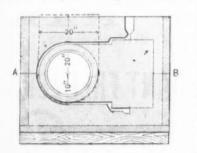


Fig. 4.—Cross-Section of Fig. 3.

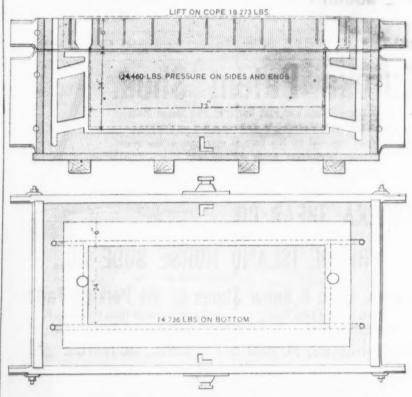
The length of the sides and ends is 196", and a plate 8 feet square and 2 inches thick which, multiplied by 24" × 20" × .26 pound, 24,460 pounds = the pressure on the sides and ends of the above casting, 20" being the vertical hight from the top of the gates to center of gravity of mold. The bottom surface is 72' × 24", which, multiplied by 32" × .26 pound, = 14,376 pounds, the pressure on the bottom.

The next end lest example is a 20 inch hub. The next and last example is a 20-inch hub and spigot tee, the casting being 20 inches in diameter and 96 inches long from end to end.

But suppose the pouring is not checked, and that the risers are filled up in 1 second, this pressure of 14,400 pounds being applied so suddenly on the cope will have the same effect upon it that press of iron 6 the same variety would that a piece of iron of the same weight would have upon the platform of a pair of scales if allowed to fall 6 inches.

The momentum of a body is the product of its weight and the square of the velocity, and the velocity that a body will acquire in falling this statute equals 5.67 feet; then $14,400 \text{ lbs.} \times 5.67^2 = 7195.85 \text{ foot-pounds}$

64.333 (some authorities make this much larger) to which the cope is subjected in I second. This is the reason why molds that are considered secure beyond a doubt sometimes give way with disastrous results. It is thought that the above examples will cover almost any case that can occur in practice. For the benefit of those who would like to The pressure to lift the core is equal to the weight of a piece of iron as shown by the dotted lines in the sectional view of Fig. 4, and of the full length of the casting. (See Fig. 3.) We then have $20^{12} \times .7854 \div 2 \times .96^{17} \times .26$ pound = 3920 pounds, the weight of one half of a piece of iron 20 inches in diameter and 96 inches long, and $20^{17} \times .26 \times .26 \times .26$ pound = 9984 pounds, which, added to 3920 pounds, = 13,904 pounds pressure to lift the core. In securing this core there should be an iron bearing on each end of the core— upon the sides of the mold, multiply the sides of the mold, multiply, the sides of the mold, multiply the sides of the mold, multiply the sides of the mold, multiply the sides of the mold, multiply, the sides of the mold, multiply the sides of the mold, multiply, the sides of the mold, multiply the sides of the mold. be an iron bearing on each end of the core- upon the sides of the mold, multiply the side



Figs. 5 and 6 .- Diagram Giving Pressures on Sides and Ends, and Lift on the Cope.

barrel to the iron ends of the flask, so that | surface of the casting by the hight, measur should be cut away in that place to the corebarrel, so as to let in a piece of iron level
with the surface of the core; then let the
anchor-stem have a bearing on this piece of
iron. The clamps should be drawn up
reasonably tight and a wedge driven between
the bottom board and drag alongside of the
clamp, so that there shall be a solid bearing
from top to bottom.

of gravity of the casting, and this product by
the weight of a cubic foot or inch of iron.

To find the pressure upon the bottom of a
mold, multiply the surface of the casting
upon the bottom by the vertical hight to the
cubic foot or inch of iron.

As a better precaution for the safety of
its trains and the traveling public, the Erie

from top to bottom.

there shall be no give; also, if an anchor be ing from the top of the gates to the center used in the middle, the loam and hay rope of gravity of the casting, and this product by

As a better precaution for the safety of its trains and the traveling public, the Erie These examples give the theoretical pressures which suppose the iron to be a liquid. It is understood by practical men that, by cooling down the iron considerably and pouring it when dull, this is diminished to some extent, the metal in the bottom part of the casting becoming set or sluggish, but it is a safe way to calculate on the full theoretical pressure. It must be remembered that there is such a thing as velocity in hydrantic trong its trains and the traveling public, the Erie its trains and the traveling and will shortly adopt a system which will require the train employees and those undergo a thorough examination in regard to the general and special instructions, the use of signals, and to be fully posted in relation to the time of each train which appears upon the time cards at each station. At

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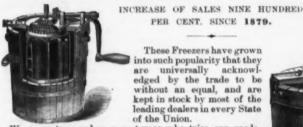
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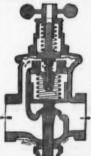
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SHIPPING-FAILURE TO LOAD-FIRE-EXCEP-TIONS IN BILL OF LADING

Goods were delivered at the wharf of a steamboat company just before, or imme-diately after, the daily sailing hours, and a bill of lading was given which excepted loss by "danger of the sea, fire, leakage, break-age, accident from machinery and boilers." The goods were not shipped that day, and at night, by fire, they were destroyed, the com-pany using every effort to put out the flames. An action was brought—Scott vs. The Balti-more, Chesapeake and River Steamboat Company—in the United States Circuit Company—in the United States Circuit Court, District of Maryland, to recover for the loss of the goods, the right to recover being based on the negligence of the company. Judge Morris, in deciding in favor of the defendant, said: "I. Even if the company could have forwarded the goods on the day they were received, and predicently." day they were received, and negligently omitted to do so, it would not affect its liability in this suit. The law is settled that in cases of this kind, unless the delay in for-warding the goods is so unreasonable in its nature as to be equivalent to a deviation, or unless the loss of the goods is the direct and proximate result of the delay, the carrier is not liable unless he would be answerable under his liability as carrier without reference to the delay. And where goods in the custody of a carrier are destroyed by storms, floods or fire, in a place in which they would not have been but for the negligent delay of the carrier, the courts hold that the direct and proximate cause of the injury is the flood or fire, and that the delay in trans portation is only the remote cause, 2. The point in this case is whether by the language of the bill of lading the company has exempted itself from its common-law liability for the loss of the goods by fire while on its wharf. A common carrier may limit its common-law liability for losses by fire when common-law hability for losses by fire when the fire is not a tributed to its misconduct. It is argued by the plaintiff that the language in this bill of lading as to exemption from loss "by fire" being classed with dangers of the sea and other risks of navigation, it is to be taken as applicable only to fire occurring after the goods are laden on board. After careful consideration I find myself unable to assent to this construction. The liability of the carrier, as such, begins at the moment of receiving the goods; and although preparatory to the transportation they are detained by it on its own wharf or in its storehouse, its responsibility then is in no respect dif-ferent from its responsibility after the actual responsibility has commenced.' EXECUTION.

Property of A was levied upon as the property of B, and A, claiming the property as his own, pointed it out to the sheriff, who levied upon it and took it into his possession. A then brought an action of replevin, and A then brought an action of replevin, and took the goods, and the sheriff, the defendant, set up that A, by showing the property, authorized the levy and thereby waived his rights. The trial court overruled this defense, and gave the plaintiff judgment. The defendant carried the case—Davidson vs. Dwyer—to the Supreme Court of Lover where the judgment was Court of Iowa, where the judgment was affirmed. Judge Beck, in the opinion, said: "A's act in pointing out the property which the sheriff sought to levy upon was not a waiver of his claim and title to it. All there was of the act is this: The defendant claimed that the property was subject to the execution, and proposed to levy upon it; the plaintiff did not concede this, but pointed the property out to the sheriff, and therefore his was not an abandonment of his title, nor would it operate to defeat his action to re-cover the property."

CARRIER-TWO DELIVERY ORDERS FOR SAME CONSIGNMENT.

& Co. had wheat consigned to them and the carrier, a railroad company, sent to them an advice note stating that the grain had been received and was held subject to their order. There was no memorandum of weights or charges, but across the blanks weights or charges, but across the blanks for them was written: "Account to follow." At the bottom of this note was a delivery form for the consignees to sign: "Please deliver to — or bearer." A & Co. signed the paper to C & Co., who made an advance upon the shipment, and, having presented or lodged the order with carrier, had it accepted by the latter. Afterward the railway company sent another advice note for the same wheat upon the same printed form as the first note, with the words "Charges only" written at the top of the paper. A & Co., falsely representing to C & Co. that this was another consignment, got from them an advance upon it. This paper also was lodged with the company by C & Co., propose to accomplish the business in an unlawful manner, or from his willfulness. Every one in any way connected in the publication." this was another consignment, got from them an advance upon it. This paper also was lodged with the company by C & Co., and was accepted. For the loss on the second advance C & Co. sued the company—Coventry rs. Great Eastern Railway Company—on the ground of negligence, and recovered. The case was carried to the English Covered. covered. The case was carried to the Eng-glish Court of Appeals, where the judgment was affirmed. The Master of the Rolls, in his judgment, said: "If the documents would have, to persons in plaintiffs' position, the meaning they attributed to them, the send-ing out of two sets of papers relating to one parcel of goods can hardly be said not to be negligent. The consignees, through the negligence of the defendants, were enabled to commit a fraud, and for this negligence

that they were given for wages, and that they would be received for freight by the POWER PRESSES. Philadelphia and Reading Railroad Company prosecution of his claim, it may be properly rs. Pollock, in the United States Circuit withheld."

Court, Eastern District of Pennsylvania-Judge McKenna, in giving the complainant a decree, said: "We are not satisfied that these notes were calculated or intended to circulate or to be used as money; that they were used afterward by those to whom they were issued to discharge their debts to others or to purchase subsistence for themselves is, in our judgment, indecisive in determining the character of these instruments; that is to be impressed upon them by the company by using them as circulation and pay-ing them out as such. This has not been ing them out as such. This has not been done. What is there, then, to put them in the category of taxation as 'circulation?' This is claimed to result from the form in which they are issued. But the Supreme Court of the United States, in United States is. Wilson, 16 Otto, 620, has decided that such a form as this is not conclusive of the question of 'circulation.'" clusive of the question of 'circulation.'

PARTNERSHIP—LIBEL.
One of a firm of dealers in furniture and draperies put upon a piece of furniture placed on the pavement: "Taken back from A.B. who could not pay for it; to be sold at a pargain." In a suit for libel upon this act two questions were decided against the defendants, the firm: 1. That the court could determine whether or no the placard was a libel. 2. That every member of the firm was liable, though one only put up the libellibel. lous matter, and without the knowledge, direction or consent of the others. In this case—Woodling vs. Knickerbocker—the Suoreme Court of Minnesota, on appeal, re-versed the decision of the court below. The Chief-Justice (Gilfillan), in the opinion, said: ... What meaning, whether injurious or not injurious to the plaintiff, these words would convey to ordinary men who read them with-out a knowledge of the transaction to which they referred, was for the jury to determine, in view of the circumstances under which they were exposed to the public perusal, and whether they were libelious or not ought to have been left to the jury to say. 2. A person cannot be held liable for a libel published by another unless he has authorized him to make the publication. There is nothing in the nature of the business of this firm—that of dealing in furniture and draperies—from which authority to one partner or to a servant to gratuitously publish a libel can be implied. The case is different from that of a partnership whose business is publishing or selling either books or newspapers, where each partner is supposed to have authority to publish or sell, and to determine what shall be published or sold, and also from that of the necessary correspondence of the firm, where each partner is presumed to be authorized to conduct it and to determine on its substance and terms.

NEWSPAPER PROPRIETOR-LIABILITY FOR MA LICIOUS AND RECKLESS PUBLICATIONS OF

EMPLOYEES.
B refused to converse with A, a reporter who came to interview him, and Athen went to P, who was employed upon the paper of B, the Commercial Gazette, of Pittsburgh, and made a statement to him, upon which and made a statement to him, upon which P wrote a libellous article against R in the paper. P had charge of a department on the newspaper, and in that department the libel appeared, without having been submitted to B. In this case the court below so charged the jury that the verdict for the plaintiff was very small, and he carried the case—Bruce vs. Reed—to the Supreme Court of Pennsylvania where the judgment Court of Pennsylvania, where the judgment was reversed. The Chief-Justice (Mercur), in the opinion, said: "A master is liable for the act of his servant within the scope of his employment and incident to the performance of the duties intrusted to him, although the specific act of injury be in opposition to the express and positive com-mands of the master. The liability of the proprietors of a newspaper for the act of an agent to whose management they have intrusted the paper is more broad. The pro-prietors are presumed to have published the libel which appears in their paper, and in a criminal prosecution therefor it is no defense for him to show that it was published with-

INTEREST ON JUDGMENT NOT ENTERED UP FOR MANY YEARS.

A judgment was recovered against a col-lector in 1556 for excessive duties in 1854 for \$715.70, and interest was added to the date of the judgment. By the terms of the verdict either party was at liberty to turn it into a bill of exceptions. A formal judgment to the date of the judgment and the second party to the second party it into a bill of exceptions A formal judg ment was not entered until August, 1883-27 years later. The case—Redfield vs. the Ystalfera Iron Company—was carried to the ing out of two sets of papers relating to one parcel of goods can hardly be said not to be negligent. The consignees, through the negligence of the defendants, were enabled to commit a fraud, and for this negligence they are liable for C & Co.'s loss."

CORPORATION NOTES FOR WAGES—CIRCULATING MEDIUM.

A railway corporation issued to its employees notes which contained a promise to pay a round sum at a fixed date, with interest, and upon their face it was expressed that they were given for wages, and that they were given for freight by the being just compensation to the plaintiff for a default on the part of his debtor. Where it they would be received for freight by the company. The notes were paid, but not reissued. The United States, claiming that these notes were a circulating medium, demanded a tax upon them under the act of February 8, 1875, which declares: "Every corporation shall pay a tax of 10 per cent. on the amount of its own notes used for circulation and paid out by it." The company filed a bill in equity for an injunction to restrain the Collector of Internal Revenue from collecting this tax, on the ground that, as the notes were not repaid, they could not be classed as a circulation. In this case—Philadelphia and Reading Railroad Company

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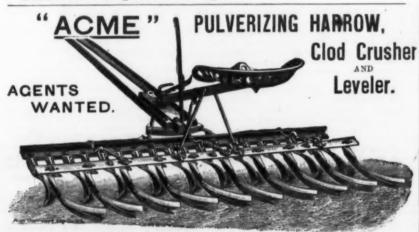
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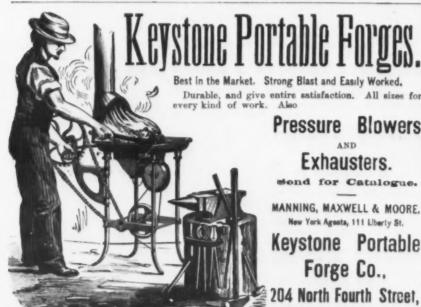
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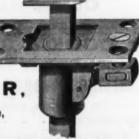
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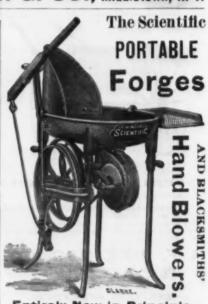
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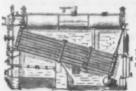
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Industries at Beaver's Falls.

The Beaver Falls Tribune recently published an account of the different industries in that city, from which we condense the

The Hartman Steel Company own some 18 acres of ground, about one-fourth of which is built over. A large building is now being the steel of steel-wire nails. built for the manufacture of steel-wire nails. The steel-works department of the above is constructed almost exclusively of iron, and is absolutely fire-proof. The wire-works building is of brick and iron, and substantially built throughout. The wire mill was put in operation in March, 1883, and has an naking in the aggregate over 25,000 tons per year of the different grades and sizes of steel wire, and is equipped throughout with the most approved machinery. The steel department was put in operation September department was put in operation September last. Its average daily capacity with the wire-rod train and 9-inch merchant iron is 150 tons. The billets are principally manufactured by Carnegie, Brothers & Co., Limited, of Pittsburgh, who are partners in the Hartman Steel Company. The works now employ over 400 men, and when fully completed in all branches will give work to nearly double the above number.

The Western File Company, Limited, had their origin in 1870, under the name of

their origin in 1870, under the name of Blake & Fessenden, and in 1875 the firm Blake & Fessenden, and in 1875 the firm name was changed to the Western File Company. The present officers are Hon. Henry Hice, president; Geo. W. Morrison, secretary and treasurer; J. A. Tatro, general manager. In April, 1880, the works were burned down, and the present works, rebuilt immediately afterward, are mostly of brick, and are mode as each for president works. and are made as nearly fire proof as possible. The works, when running their full capacity, give employment to from 250 to 300 work-men. The capacity is 1200 dozen files per day of all the various grades and sizes, numhering about 1000 different qualities and kinds. Over 500 tons of steel are used annually, and the products are shipped throughout the United States, Australia, South America, Canada and elsewhere. The power is derived from six large boilers and a 300-bores are supported by the state of the stat horse-power engine. A 40-horse engine drives the cutting machinery. The forging department of this building, in which are the numerous power hammers, is 115 x 55 feet. The annealing-room of brick, a wing adjoining the forging department, a right-angle wing at the end of the main cutting department, and 400 feet in length of wooden buildings, in addition to the main brick building, comprise the larger part of the works. The detached buildings are a fire-proof pattern-house, hand-forging shop, carpenter shop, box shop, general store and packing-room and some other smaller build-

The Beaver Falls Cutlery Company have The Beaver Falls Cutlery Company have works occupying four acres in extent, which were erected in 1867. They are built of brick, and consist of 10 buildings used in the various departments of cutlery manufacture. The main building, three stories in hight, has a frontage of 137 feet, while the wings are 285 and 287 feet in length respectively, and from one to three stories throughout. These, with the other buildings, are fully equipped with the necessary machinery, the entire works being run by an engine of 120 horse-power and four turbine water-wheels of a combined capacity of an engine of 120 horse-power and four tur-bine water-wheels of a combined capacity of 450 horse-power. The building and equip-ping of these works cost over \$1,000,000. Employment is furnished to about 200 hands. knives manufactured cover all grades and designs of table and pocket cutlery The average daily capacity is 100 gross of table cutlery. The officers of the company are H. T. Reeves, president; directors, Jacob Henrici, Jonathan Lenz, Hon. Henry Hice, H. T. and J. Reeves; Harry W

Reeves, superintendent.

The Emerson Saw Works began opeations 13 years ago with a force of nine men. The firm at their start were known as Emerson, Ford & Co. The principal specialties of manufacture are patent planer saws, clipper flanged-tooth saws, lumberman's clipper saws, universal adjustable saw swage, Damascus tempered band saws and others. These products are shipped to all parts of the world. The members of the firm are Jas. E. Emerson, of Maine, and Jas. B. Smith and Julius F. Kurtz, of Pennsylvania. H. M. Myers & Co.'s shovel manufactory

started in 1868 in New Brighton, Pa., by T. B. White, who had been a bridge contractor since 1852; were organized and removed to Beaver Falls in 1879. The ground occupied is 1½ acres, with their own siding on P. F. W. & C. Ry., scales, track, &c., necessary for moving material. The buildings cover a space of over 20,000 square feet and are fully furnished with the necessary machinery. Their business amounts to from \$150,000 to \$200,000 annually, and when running full they employ 75 hands.

The Beaver Falls Steel Works occupy five

large buildings, containing rine pairs of shears, two train of rolls, three steam hamthe rolling and finishing of o tons open-hearth and Bessemer steel. To furnish power for this machinery two turbine water-wheels and trade there.

Beaver Falls being Mr. H. Brown. The secretary is Wm. Robertson, and James Brown is shipping clerk. Some 200 men are employed, and 8 to 10 tons of iron are daily used in the manufacture of their wares, which at present consist chiefly of all kinds of chains from 18 up to 2 inch cable. Next in importance to their chain products is their wagon and agricultural hardware. All descriptions of ironware used in the manufacture of wagons and plows. Of late years they have devoted a large share of their at-tention to the quality of chains turned out, and with this end in view have recently erected a new chain-testing machine whose capacity is 100 tons

The Knott & Harker Manufacturing Com-pany, who purchased the Merrick & Co's. business in New Brighton, are now erecting buildings at Beaver Falls. Their foundry building is 70 by 100 feet, and the warehouse, fronting 125 feet, has an average depth of 65 feet, and is two stories in hight. The business will be removed from New Brighton to the new building about May 1, and 50 to 100 men will be employed. The present manufacture consists of enameled ronts, grates, fenders, corrugated summer pieces, window weights and various other castings, but in their new building will be added many novelties of which the designs are not yet all completed.

Untrustworthy Weapons.

Our British cousins have carried their cheapening processes too far. In the manu-facture of textile fabrics the use of shoddy and all sorts of filling has made it necessary and all sorts of filling has made it necessary for Manchester goods to adopt foreign trade-marks as a passport into even barbarian markets. In metal goods cheap steel is sub-stituted for a reliable quality, and the poorest pig iron is worked into shapes it is most unfitted for. The wretched quality of British ship plates has often been exposed. It seems to be of the convenience the steems to to be of no consequence that precious lives are endangered by this avaricious policy, whose latest results are shown in the following reference to English military operations in the Soudan:

During the cavalry combat at El Teb the English troopers found that their swords were no match in temper for the spears of the Arabs. The weapons of even the British officers in some cases bent when blows were delivered, while those of the men proved too short to reach their active and wiry opponents, who threw themselves from their own horses when charged upon, and endeavored, by sheltering behind hillocks and bushes, to get behind their assailants and hamstring get behind their assailants and hamstring their animals. One naval captain who was in one of the squares saw that a gap had been made in one of the faces, into which the enemy were crowding. He threw himself into the opening, but his sword bent the first blow he delivered. Instead of retreating, however, he began to knock the Arabs over right and left with his firsts, and strangely escaped without a wound. The name of this officer was Captain Wilson, of H. M. ship Hecla, and no doubt the Arabs rather respected his eccentric method of fighting, supposing either that he was mad. fighting, supposing either that he was mad, and therefore sacred, or that he carried an amulet, and was therefore invincible. cavalry declare that the Arab spears are a much more effective weapon than their own swords, which may readily be believed if, as stated, the latter bent like pieces of hoop-iron when used. But this is not the first time the deficiencies of the English cavalry sword have been pointed out.

The Exhibition at Turin.-The Italian Embassy has received a circular setting forth the plans and general purpose of the Italian Exhibition which is to open in Turin next month. It is designed to be a general exposition on a large scale of the agricultural, industrial and scientific progress of Italy, and the abundant financial support already guaranteed, largely by require setting. already guaranteed, largely by popular sub-scription, the intelligent preparations made, scription, the intelligent preparations made, and the public interest excited, would seem to render its success certain. From the international point of view, its most interest-ing feature will be the display of electrical apparatus and processes, which has been opened for competition to the world. The Government has remitted all duties upon was located in 1868, and changed to present firm name in 1875. The works cover over 1½ acres, are of stone, brick and frame. ks cover over power gratuitously to all the exhibitors in this department. Large prizes have been offered for the best inventions in industrial The Penn Bridge Works, contractors and manufacturers of wrought-iron bridges, were started in 1868 in New Brighton. Po electricity.

It is reported that the councils of the Choctaw and Chickasaw nations of the Indian Territory have legislated against wire Indian Territory have legislated against wire feuces, owing to the pressure brought to bear upon them by the poorer Indians, who favor a free range. Under the present law no one is allowed to build over a mile of fence—enough to inclose 40 acres—and no part of this can be wire. By joining fences with his neighbors a citizen may inclose more than 40 acres, but in no event mu-t his own fencing exceed the prescribed length mers weighing 500, 1500 and 4000 pounds —one mile. The law was aimed at the large cattle owners, who fence in the best grazing grounds, and springs and other available grounds, and springs and other available grounds. Siemens gas reheating furnace and a 24-pot Siemens melting furnace, which turns out 6 supplies of water. Some of the Territory cattle raisers are large buyers of barbed

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American Manufacturers Abroad.

It does not often happen that United States manufacturers either remove their establishments abroad or start branch works in other countries. There are very few industries in which the development has been so marked and so advanced in this country that our own wants have been so well supplied, or such other peculiar conditions have existed, that an overflow of this kind has taken place. We often hear of English capital being transplanted to this country, English manufacturers having started branch works of various kinds in many parts of it. These works embrace iron and steel works, textile manufactures and various other kinds of establishments. It is only occasionally that a movement of this kind takes place among works have been located abroad for the tariff question thus becomes a question of even politicians perceive their influence upon sewing machines, &c. A screw company the capitalist. for years maintained a branch establishment in Canada to supply the Canadian market and to obtain certain advantages in foreign markets which could not then be secured in We have also seen in past any other way. years the transplanting of American capital to foreign countries in consequence of defects tageous to manufacture abroad for the that it occurs simultaneously with the ina manufacturer of metallic shingles found was so low, and he could purchase his raw A few figures will show the magnitude of materials so much cheaper on the other side our Cuban trade : of the Atlantic, that he could afford to remove his works there, manufacture his shingles there and ship them to his customers in this country at very much lower cost than if his works were located in the United States. An American manufacturer of cotton ties also found that he could do better for this market by engaging in the manufacture abroad. owing to the peculiar operations of our tariff

Now another case has arisen in a differen industry. Messrs. Powers & Weightman, of Philadelphia, who have for many years been the most prominent manufacturers of quining in the United States, are, it is announced. about to start a quinine manufactory in either Italy or Germany, for the purpose of we consume is imported from Cuba. manufacturing quinine for the American

belongs, we believe, to no other manufactured article. Not only is there no duty on foreign quinine, but the domestic manufacturer is also obliged to pay heavy internal revenue taxes on the alcohol and other solvents he uses, which his foreign competitor consequently gets much cheaper. This discrimination against a class of American manufactures, though unjust and inequitable, there is at present little hope of turers of quinine have continued the production of this important medicinal preparation, though on a much more limited scale than formerly, and Messrs. Powers & Weightman would very probably continue its manuhappened that a short time ago their manufactory in Philadelphia was completely destroyed by fire. Under the cirumstances it appears that the firm deem it wiser policy to engage in the manufacture of quinine in some country where they can secure labor at as low a rate as their foreign competitors. One statement that we have seen says they have leased the Duchy of Baden, Germany, while another statement mentions Milan, Italy, as being the location selected. Italian labor is very cheap, unskilled labor commanding about 40 the average American wages that Messrs. Powers & Weightman will undoubtedly reap very great advantages from the location of their factory at such a point over its recourse of time rebuild their quinine factory in Philadelphia, as they have a very extensive chemical plant still in existence there from Philadelphia, but it hardly seems reasonable to suppose that they will make their American works as extensive as they formerly were, unless a very great change occurs in our internal revenue or tariff laws, so that it may be possible to make quinine here as profitably as it can be made abroad. This indicates what may be done in other

change in our tariff laws, it becomes possible to manufacture a product abroad at a rate which will enable it to be sold here at a price very much under the cost of the American product. Only a few years ago, when the question of duty on steel rails was being agitated, a capitalist who had a great deal of money invested in the manufacture of steel rails said that if there was not to be a Cuba are gloomy enough. high duty maintained on steel rails, he very much preferred the duty should be taken off entirely, as in that case he would engage in the manufacture of steel rails abroad for shipment to the American market. His sed most profitably. It will seek locations where not only other elements are favorable, but where labor can be had at very low rates. Unfortunately for the workingman, world in which he can sell his labor at a good, fair price. If he loses his opportunity to

branches of trade if, through any radical

The Financial Crisis in Cuba.

Our business relations with Cuba are se important that the financial and commercial crisis at Havana and other Cuban ports has considerable interest for us. The crisis atin our tariff laws which made it more advan- tracts all the more attention from the fact American market than at home. A case of auguration of reforms of a fiscal nature dethis kind occurred several years ago, when creed by Spain in connection with this West Indian trade, and calculated to facilitate our this falsifying of figures has been especially that the duty on his goods if made abroad business relations with Cuba and Porto Rico.

Imj Fiscal year. 1880. 1881. 1882.	into U. S. \$65,433,018	Domestic export from U. S. to Cuba. \$11,026,:08 10,999,276 11,775,073 14,567,918
Total	1964,421,606	\$48,368,370

Our import of sugar from Cuba in tons of 2240 pounds is shown in the first half of the following table, and our total consumption in nd half

year. 1880	\$240 lbs. 500,829 476,750 499,000	Calendar Tons. year. Tons. 1880. 894,341 1881. 918,345 1882. 942,800 1883. 1,031,015
This shows th	at over	Total 8,736,591 one-half of the sugar

market. It will be remembered that in 1876 yielded 970,000 tons, production has been number of employees given in these tables, the duty of 20 per cent. on quinine was abro- much smaller. In 1882-83 there was a as a rule, is not the average number at work dential canvass will see the most thorough have been of genuine "MF" plate, while the gated, and quinine has since then occupied short crop, but the present crop, 1883-84, during the year, but the number of men discussion of the question of protection that balance would be of inferior quality, proba-

600,000 tons. Unfortunately for the Cuban planter, however, there are large crops not only of beet-root sugar, but of cane sugar, in considerable development in most trades, tariff question out of the arena of politics. only of beet-root sugar, but of cane sugar, in almost every producing country, and the price and the number of men employed at the is unsually low, with the prospect that it will go still lower. If the price had been high, or even moderately so, the present crisis in ber employed at the beginning of the year, Cuba would probably have been avoided or at least postponed. In February, at the employed. Now, under such circumstances, price then ruling of \$6 @ \$7.75 per arrobe, removing. Notwithstanding the unrestricted it was estimated that the crop would yield competition of the foreign article in the \$36,000,000, which, by the way, is just about American markets, the domestic manufact the amount required for the colonial and municipal governments during the year. The general causes of the crisis may be enumerated as follows: The late insurrection of 10 years' duration, with all its attendant evils of high taxes and the circulation facture in this country if it had not of \$40,000,000 paper money subject to condown as simply approximations, to which tion by shutting down such ovens as they tinued fluctuations; the losses sustained by the rapid emancipation of the slaves and the to the source from whence they are derived. increased cost for the planters in having to [In the same way it may be noted that alprovide free labor, aggravated during the most all statements purporting to give the present crop, as we have indicated, by ex- average rates of daily wages in any industry tremely low prices of sugar, which leave for a number of classes are erroneous. The heavy losses to planters; and the undue usual method pursued in obtaining these speculation and importations in excess of so-called average rates is to add up the difnecessities, coupled with squandering in a ferent rates paid and divide their sum by Boehringer quinine factory, in the Grand great many instances, and want of foresight the number of such rates. It is evident that tion, control the market as to price and proto save for hard times while prosperous times such a result, which does not consider the duction, dictating how much coke shall be lasted.

The remedy as proposed by Cuban merchants and planters would be the complete cents per day, and skilled labor about 60 abolition of the export duties on sugar and cents. These wages are so very much below tobacco, a material curtailment of the duties on imports, a signal reduction of the colonial budgets, and important administrative reforms. Meanwhile there have been numerous bank and mercantile failures, and for erection in Philadelphia, besides other ad- the moment the Captain-General, his subon the alcohol and other solvents used. It first to allay the panicky feeling. Fortu- that industry they are all the wages that are may be possible that this firm will in the nately, both the native Spaniards in Cuba paid out from the raw material to the finished and the Creoles of all classes are this time agreed that some thing must be done, and at represent that the entire amount paid for once, to place matters on a safer footing, labor in the production of a given article is able and at the same time popular official, of that industry into the finished product. freely consults those most interested in com- Take the pig-iron industry, for example. Mr. bating the storm. The problem to be solved Swank, in his census report on its manufac being devoid of political entanglements in ture, gave the total amount of wages paid durthis instance, is at least that much simplified, ing the census year in manufacturing 3.781,though the evils that lie at the bottom are o21 tons of pig iron as \$12,680,703, but this complicated and deeply seated. The worst only represented the wages of the labor emof the matter is that the mother country can ployed in converting the material-that is, lend Cuba little or no financial help during the ore, the lime and the coke-into pig iron, this dilemma, for Spanish credit stands low, and did not include any of the labor paid in Spain owing about \$2,500,000,000, and being producing the ore, the coke or the lime, or in unable to raise any money except on good security. But for this Spain would probably 000, the paper money would have been re- the labor cost of converting these materials deemed long ago, and the present crisis pre- into pig iron, plus all the labor cost of the vented. As matters stand, prospects in materials themselves, and it is not correct to

and Labor Cost.

. We think it will hardly be questioned that capital would enable him to manufacture in the most important subjects pressing for dis any place, while the abolition of the duty cussion and solution at the present time the would give him an opportunity to introduce whole world over are those relating to labor, steel rails that had been manufactured at and which, for want of some better term, very much lower rates on the other side than are known collectively as the "labor queswhich are suggestive to the workingmen of most important matter to the workingman, this country, and show how very deeply the as it is really to him the question of his ex-America seems to be the only country in the shaped with reference to its bearing on these questions. For instance, tariff and revenue laws are being discussed more than ever in employer to a foreign country, the working- though in too many cases politics, and not man cannot follow the example of capital industrial considerations, determine the char-

bearing false witness. There are two subas to average wages. It is simply impossible to arrive at the correct average wage paid the different classes of labor in a given industry. It is customary to take the census ators. figures of wages paid, and divide these by

close of the census year in any industry was largely in excess, in most cases, of the numand much greater than the average number to divide the wages paid during the whole manifestly unjust, and the quotient so obindustry. All such statements may be set only an average of rates, and not the aver-

age rate. Another inaccurate use of figures is found in many attempts to give the labor cost of figures of an industry relating to cost of production are for materials and wages. These wages are frequently assumed to be the entire cost of the labor that enters into a given product; but it is misleading and untrue to about the furnace in the manufacture of pig represent that all the labor in a ton of pig iron is the \$3.35 shown by the division of the Fallacies Regarding Average Earnings amount paid at these furnaces for labor by the number of tons produced.

The Morrison Bill.

Mr. Morrison's bill is now before the House, together with the views of those in favor of it and those against it. The chief argument of the majority in favor of the would be possible liere. These are matters tion " or the "wages question." This is a bill is that we are collecting revenue that we can dispense with, and by implication it is asserted that the Morrison bill will reduce working people are interested in the tariff istence, or at least the kind of life that he the revenue. The reasons of the minority question. Capital will go wherever it can be shall live, and no one can have watched the for objecting to the bill are in brief those labor questions during the past ten years manufacturers and iron-ore producers at the without having noticed that, in a marked time of their hearing, but special stress is and a growing degree, legislation is being laid upon the effect that such a reduction would have upon the wages of labor. We question if ever in the late history of tariff legislation or tariff agitation so strong a feelbill, and the most remarkable feature of the discussion is that it is not so severe between House is favorable to tariff reduction, and ocean, or else their trade exceeds the profavor of the the labor question, there are few subjects on with some slight amendments, but there that 15 cents a box has been the price which which there is greater ignorance, not only is also a very strong minority, ably led and as to the facts, but as to the bearing and sig- earnest in their convictions, who are as denificance of the facts that are known. It is cidedly opposed to the Morrison bill, or anya trite saying that "figures will not lie," and thing like it, as the majority of this party yet, either purposely or ignorantly, figures are in its favor. The most determined regarding wages are made to violate the efforts are being used on the part of this order, as the only way of accounting for cerninth commandment, and are constantly majority to dragoon the minority into the tain circumstances that have been observed. support of the bill, and the party lash is Now it is admitted that plates have been jects connected with this question in which being cracked over the heads of the minor-branded to order, or rebranded in many inity-with what result remains to be seen; stances, and, in one case at least, it has manifest recently in connection with the but it seems quite evident that, whatever is been done openly, upon the sidewalk in discussions over the tariff question. They the result, the bitterness engendered over front of a werehouse. are the average wages of labor in a given the Morrison bill will not soon be forgotten. names, nor be needlessly circumstantial in industry and the labor cost of a given arti- The indications now are that some sort of a presenting particulars of this nature, for we cle. The chief trouble with the arguments bill will be forced through the House. We believe for the most part such tricks are not that have been used on this subject seems to question, however, if it will go through in being practiced at present. It would not be grow out of a misapprehension of the facts such a shape as to be a serious injury to any at all difficult, however, to go into details if set forth in the census reports of different industry, and it is also doubtful, even if it we should find such a course necessary to industries, especially iron and glass. First, passes the House, if it can secure the re-protect consumers. quired majority in the Senate, though it is possible that a bill may be so framed as to to use inferior plates in the guise of better command the votes of the majority of Sen-

but simply the quotient arising from the fication that will be kept in view will be the a place on the free list—a distinction which now being shipped, will probably amount to employed at the close of the year, and it is has been entered upon since the days when bly of the cheapest that could be obtained

well known that the census year from the greater question of the abolition of

The Connellsville Coke Pool.

The "coke pool" in the Connellsville egion, which we referred to some weeks since as having been formed after many attempts, is now in operation, the final steps year by the number of men employed in that having been taken last week. The basis of industry at the close of the year would be the arrangement is briefly that the four largest producers-H. C. Frick & Co., tained would simply mean nothing. It is McClure & Co., J. M. Schoonmaker & Co., practically an impossibility to secure all the and the Connellsville Coke and Iron Comfacts necessary to arrive at the fair and pany-should buy the entire product of the 16 proper average earnings for a year in any or 17 smaller concerns, but that the coke pool should have the right to restrict producmore or less weight may be given according thought necessary. The smaller producers have formed a "Coke Producer's Association," representing 1500 ovens. The producers will probably have a representative on the board of the pool.

This action virtually places the whole Connellsville coke trade in the control of the pool. The four firms named, together with a representative of the Producers' Associanumber of men employed at each rate, is produced in the Connellsville region, when it shall be produced, and at what price it shall be sold. If it is found that the demand will take but 700 cars a day, instead of 900, which can be produced, a restriction articles of manufacture. The usual census of 200 cars will be ordered, and this restriction will be divided among all the parties to the agreement, whether large or small producers, in proportion to their capacities. At present but 700 cars a day are produced. vantages arising from their freedom from ordinates, the financiers, merchants and article. In one sense they are—that is, in It is estimated that the present week a still the payment of heavy internal revenue taxes planters are seemingly at a loss what to do that special industry or a special branch of further restriction will be ordered as preliminary to an advance. Coke is now selling at about \$1 a ton; the first advance will probably be to \$1.10, and it is possible that the price may gradually be increased to \$1.50. Some 1500 or 2000 ovens are not in and at the Falls of Schuykill, a few miles and Captain-General Castillos, who is an this amount paid to convert the raw materials this pool, but as they make coke for private consumers only, and not for sale in the general market, it is not thought necessary to include them in the pooling arrangement.

Fraudulent Practices in the Tin-Plate Trade.

One of the results of the changes which have taken place in the methods of the tinplate trade incident to the inauguration of a demand for plates of high quality and the producing the other materials that were used introduction of the guarantee system, is the cropping out from time to time of some of have assumed the Cuban debt of \$100,000,- iron. The real labor cost of this pig iron is the methods by which profits were made under the old régime. Perhaps we should speak unadvisedly if we credited all of these things to the past, for it is possible, and perhaps probable, in some directions at least, that the same things are yet in vogue or are replaced by their equivalents. this may be, it is true that little by little the methods by which consumers have been bewildered in the past, and have had unloaded upon them worthless plates at high prices, are being revealed. We have no doubt that our readers will be highly edified if some of them are presented.

A very large demand has existed in certain quarters for empty tin-plate boxes bearing the brands "Talbot," "Melyn" and other well-known qualities. We have heard of lots of from 400 to 600 being bought, while smaller transactions have been very frequent, course of legislation and discussion upon presented by the committee of iron and steel all of which indicates the magnitude of the trade. The ostensible purpose in purchasing these boxes has been to repack plates the packages of which were damaged in transit. Whether or not this has been the real purpose may be judged from the fact that, in one instance at least, in an importation of dispose of his labor by the removal of his the light of their bearing on labor, and ing has been provoked as over this Morrison 75,000 boxes of plates, not to exceed 50 boxes were broken to the extent of requiring new boxes. This is at the rate of one new box American manufacturers. A few branch and better his condition by emigrating. The acter of these laws, there is no doubt that parties as it is between the factions of the to each 1500 boxes imported. It does not same party. There can be no question that take much figuring to show that somebody's manufacture of American novelties, such as greater moment to the wage-earner than to the welfare and well being of the working a majority of the party which controls the tin gets very badly handled as it crosses the empty boxes bearing acceptable brands has commanded. The statement is further made that the demand has exceeded the supply.

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It has been gravely intimated in the past that tin plates must have been branded to We shall not call

The blame for bad plates, or for the attempt ones, does not rest solely with importers and dealers. The so-called honest consumer is Whatever may be the result of the Morri- probably as fertile of expedients in matters the number of employees, and claim that son bill, it is evident that we are to have of this kind as any one connected with the this represents the average earnings of the another Presidential campaign fought out on tin-plate business. Where "M F" tin has persons engaged in that industry, when the issue of protection. We believe that in been specified for roofs, and even where a it is evident, on the least consideration, the selection of candidates for the highest close inspection of the material upon the that it represents nothing of the kind, office in the gift of the people, the chief quali- part of the superintendent or architect has been instituted, cases have been known where Since 1873, when the sugar crop of Cuba division of one number by another. The position of such candidates on tariff, and the the first sheet or first half-dozen sheets in a indications now are that the next Presi- roll-for standing-seam work, for example-

before the tin is laid, this trick would effectface of the roof as fast as laid the fraud would be concealed, only to be revealed by posure to the elements. Let every consumer make sure that his own hands are clean. The reform in the tin-plate trade, to be effectual, must work at both ends.

The Condition of Business.

For the first time for many weeks we can note some indications of improving trade. Prices are no higher, and, indeed, in some cases concessions may have been made to a slight extent to influence sales, but the fact is apparent that more business is being transacted. Inquiries for pig iron are more frequent than they have been, though in this particular branch of the iron trade there is less to note in the way of improvement than in many others. The better feeling pertains more directly to the manufactured-iron trade. Bar iron, plate iron and sheet iron all feel a slight impulse in the direction of a larger volume of business This is beginning in the right direction, as a demand for the finished product should precede a demand for the raw material, which will follow in due course if the demand for manufactured iron continues to im prove. A feature of the trade which has been decidedly marked for several months has been the inclination to buy just as much as was needed, and no more. This constituted a hand-to-mouth business, which was unsatisfactory, but nevertheless healthy, as it kept the market free from accumulations of stocks in buyers' hands and made it sensitive to any sudden change in the outlook. Recently some large orders for manufactured iron have been placed by wellinformed buyers who evidently believe prices will not go lower, but may possibly move in the other direction. One such order that has come to our notice is for a 500-ton lot of bar iron, which was given to an Eastern Pennsylvania mill, while 25-ton and 50ton lots are being called for in this market much more frequently now than was the case but a short time ago. The outlook is regarded as extremely favorable for a good volume of trade in April, though a rise in prices is not counted upon with any degree of confidence, and a "boom" is considered altogether out of the question.

A lawsuit of more than usual interest and importance to miners and purchasers of iron ore has been on trial in Pittsburgh and has has just reached a conclusion. In making sales of ore in the West it is usual to sell the ore on its own reputation, or upon some sample lot, or as being equal to some other ore of an established reputation. Jones & Laughlins, of Pittsburgh, contracted with Rhodes & Co., agents of the West Republic Iron Company for a lot of ore of No. 1 standard quality and equal to a sample car-load sent them. When the ore was received Jones & Laughlins claimed that it was not equal to No. 1 Republic ore, and was no better than No. 2 ore, and after repeated trials stopped shipments. The West Republic Mining Company claimed that with the exception of the first shipments to the amount about 200 tons, which they said was shipped by mistake, the ore was equal to their No. 1 West Republic, and the amount of their claim aggregates \$25,053, with interest from March 1, 1883, and which included damages on a certain amount of the ore that not delivered. Jones & Laughlins claimed that they were not bound for damages on account of the contract having been violated by the plaintiffs, and that they were entitled to a rebate on account of the ore not being up to the standard, the amount to be fixed by the market price of No. 2 ores, the jury to decide the matter of fact according to the testimony, and they found that the defendants were not liable for damages, and allowed them a rebate of \$2 per ton, and without payment of any interest, thus vindicating the position taken by Jones & Laughlins. This case emphasizes the great need in the West of some more exact mode of selling ore than has been in vogue. There is no better way than to sell by the unit of iron with a minimum percentage and with a maximum of phosphorus, sulphur, silica, &c. This is virtually the mode of selling foreign ores, and that it has not been adopted in the West long ago is doubtless due to the fact that the ore producers have been able to dictate so completely their own terms.

Our English letter will possess special interest to our readers this week. A very important meeting of fair traders, which is a euphemism for protectionists, was held at Birmingham on the 5th inst., and the proceedings indicate that there is a growing dissatisfaction in Great Britain with the free-trade policy which has so long been in favor there, and was at one time so deeply rooted in the affections of the people that a British protectionist was as rare as a white crow. We are promised further particulars by our able correspondent concerning this movement. Another and a very considerable part of his letter is devoted to the Scotch cinder-pig controversy, and some very spicy correspondence between a com-

for the purpose. Since inspection for the Connal & Co. is given in full. Our corresmost part, to be thorough, must take place pondent says he believes The Iron Age will be the only paper to give this correspondence in ually blind the architect to the real quality its entirety, as the British journals will very of the roof. By promptly painting the sur- probably refrain from publishing it for fear of possible libel suits. The evidence contained in this correspondence of the inferior the destruction of the roof upon slight ex- character of much of the G. M. B. iron in Connal's stores now represented by warrants that demands honest plates of the importers is very damaging, and will undoubtedly in time seriously affect the value of warrants. The importance of this controversy can be inferred very readily from the fact that out of a total stock of 1,698,976 tons of pig iron in Great Britain at the beginning of this year about half of it was held in Scotland alone. where it represents four-fifths of a year's make! On this subject the London Iron and Coal Trades Review deems it proper to say If the Scotch stock could be brought within reasonable proportions it would be very much better for the whole trade, for producers are very much 'under the thumbs of speculators with such a stock as this But if the Scotch stock is composed of an unknown, but perhaps very large, proportion of cinder pig iron, it may take many years and several "booms" to absorb it.

> What would be the effect of a serious war in China is a question which an intelligent subject of that Government has attempted to answer. Contrary to what might have been expected, it seems probable that not a few among the more enlightened classes in the Chinese Empire, as lately proved to be true in Korea, are far from regarding as an unmitigated calamity any event which may tend to convince the masses of the people tend to convince the masses of the people there was of great service to the Govern-that resistance to the progressive spirit of ment during General Butler's campaigns this century is futile. We are led to believe that there are some high in influential quarters among the Chinese who even contemplate with equanimity the possibility of a crushing defeat. The intelligent Chinaman above referred to, as reported, seems to think that nothing short of a public disaster will ever make the Chinese a nation. The rule of eunuchs and old women, he says, has become a shameful farce. No reform. whether military, economical or political, is possible while the views of practical and instructed men are put aside and the Empire governed by creatures to whom knowledge contamination, and who still live in the delusion that they are rulers of all under heaven.

Ex-Governor Seymour, in a recent communication, shows the important influence which the Erie Canal has had upon our export trade by cheapening cost of transporta-tion from the interior. He reasons that Europe is not dependent on our commodities, and that our only course is to undersell. We only sell to Europe because we have cheaper modes of sending our products to their markets. We have been able to do this because we have cut down the cost of carrying. Our exports grow up as carrying rates are cut down. * * * We are to have a hard struggle to keep our lead as a food-supplying country, and we must give up the delusion that Europe depends upon us for food. They will only buy of us if we can deliver it to them at the lowest cost." In the face of such palpable facts, the protracted "corner" in grain which has operated so long to exclude our products from Europe, because held above the parity of prices abroad, appears like egregious folly. Three successive reductions in rates on east-bound freight by rail, all within a week, together with ocean freights unprecedentedly low, ought to start a free export movement, but as yet the current is as sluggish as ever.

Discouraging accounts relating to labor, trade and manufactures in Canada are published in some of the English papers from their correspondents in Toronto and Montreal. Their ostensible design is to offset the glowing speeches of the Marquis of Lorne, whose recent observations on the Dominion were doubtless well meant, but were not sufficiently guarded. The latter made it a avacial oh to depict in glowing colors the various attractions of the provisions for the edification of intending emigrants, but others not less zealous are constrained to proclaim that the prosperity of Canada is in a large measure prospective; that, while the bird is sure to be caught, it is not yet in the hand. With rejuctance, but necessarily, having in mind the present crowded state of police-cells and charitable lodging-houses, confession is made that industry everywhere is greatly depressed. What Canada wants, we are told, is less manufacturing and more natural products.

The Canadian Pacific Railway bill having received the assent of the Governor-General, there is great exultation in Canada. The Montreal Herald says: "At the present moment nothing is discoverable which can prevent the completion of the Canadian Pacific from ocean to ocean within two years, and when this result has been iron, " accomplished the world will stand in the presence of the grandest railway achieve-ment of our age and time." Few meas-"ment of our age and time." Few measures ever brought before the Canadian Pariament have encountered a more determined opposition than was made befriends of the Grand Trunk line in the by the tempts to prevent the completion of the proposed new highway into the Northwest and to the Pacific Ocean.

The article on "Boiler Insurance," published in another column and taken from a British contemporary, reflects severely upon the practice of so-called British boiler insurance and inspection companies, showing that. while perhaps the work of inspection is prop-

guarantee whatever of its safety and good condition. Competition among different in surance companies, as it seems to exist, with the results necessarily growing from it, is utterly out of place, and as in not a few instances the owners of boilers are also in a measure directly responsible for the ineffi-cient working of the system, there seems to be room for a good deal of reform on both

English enterprise in opening new markets recently experienced a sudden check in Southern Morocco. The Sûs and North African Trading Company secured the approbation of the local authorities, and a process of bartering commenced with en-couraging prospects, but a company of Turk-ish soldiers shortly arrived and invited the merchants to consult with His Majesty the Sultan, by whom their servants were imprisoned, while those persons left in charge of the goods lost no time in converting them to their own uses.

OBITUARY.

GENERAL GODFREY WEITZEL

The death of Gen. Godfrey Weitzel, of the United States Engineer Corps, occurred on the 19th inst., at his residence, 106 South Thirty-sixth street, Philadelphia, where he had been lying ill for some time. The general leaves a widow and a daughter. His remains were taken to his native city—Cincinnati—for burial. General Weitzel was born in 1835, and was graduated at the Military Academy of West Point. Entering the army as a brevet Second Lieutenant of Engineers in 1855, he was engaged under the command of General Beauregard in building Forts Jackson and St. Philip, below New Orleans, and the knowledge gained by him against these strongholds. During his active service in the army his valor won him successive promotions. After the war he returned to the engineer service, and was en-gaged upon some of the most important engineering projects for the Government. His greatest feat was probably the construction of the lift-lock at Sault Sainte Marie, Mich., the largest in the world. He afterward became the successor of Colonel Lud-low in charge of the river and harbor improvements of the Delaware in 1882. He continued in command of the Philadelphia station from that time until his death.

Primitive Iron-Making in Arkansas.

BERRYVILLE, ARK., March 20, 1884. To the Editor of The Iron Age: Having heard a tradition of there having been iron smelted in this region by negroes before the smelted in this region by negroes before the late war, I made inquiry into the matter, and found a place where iron had been smelted in old tree-stumps, and I also found large nuggets—or, rather, bowlders—of soft, pure ore. I have seen a sledge-hammer which some old man made from this iron, smelted in a tree-stump. The hammer is in a blacksmith shop in Berryville. I have a sample of this ore in my office which I will sample of this ore in my office, which I will send to any one taking any interest in the matter. 1 am not a mineralogist, but am satisfied that there is iron of a very superior quality here, that will soon be worth inco culable amounts of money. Very truly, CLARKE W. HARRINGTON. incal-

WASHINGTON NEWS.

(From Our Own Correspondent.) WASHINGTON, D. C., March 25, 1884. SENATOR INGALLS ON PROTECTION AND FREE TRADE.

Senator Ingalls, of Kansas, who has usually been regarded as not holding very emphatic views on the tariff, made use of the following expressions, in a recent conversation with the correspondent of The Iron Age: "The idea of free trade some years ago was preferred in the West, but, with the diversification of industries, the doctrine of protection has become an element in our system. While in one sense the argument is with free trade, the facts are with protection. Under our American economic system rags have been turned into robes, hovels into palaces, the desert into blooming fields, and the West into prosperous and happy communities."

TREASURY TARIFF DECISIONS The weekly abstracts of decisions during the past month, giving the simple ratings of certain articles named, have already been given in this correspondence. The decisions in extenso, setting forth the reasons for the construction to be given to acts of Congress on the tariff on these articles, have just been issued from the department, and contain much valuable information bearing upon the interpretation of the Metal Schedule of the act of 1883

DUTY ON METAL FRINGE.

On a recommendation of the affirmation of the decision of the collector of customs at Chicago, assessing a duty of 45 per cent. ad valorem on metal (bullion) fringe, the claim of the importer being at the rate of 25 per cent. ad valorem, the department modifi its opinion that the article was provided for under the general category for "manufacenumerated or pro not specially tures. vided for, composed wholly or in part of iron, * * or any other material," taking as basis of this change of interpretation a recent opinion of the Attorney-General that the rate of duty is 25 per cent., and con-cludes that "such fringe may in the future be admitted on the payment of the lower rate indicated."

LOWER BATE ON IRON TURNINGS.

In considering the appeal from the decision assessing duty at the rate of 45 per cent. ad valorem on iron turnings, the department has instructed the collector at Buffalo that "the question involved is whether such assessment as the collector at t whether such merchandise, which consists of the waste of new iron, shall be classified as 'manufactures, articles or wares ** of iron,' or as 'metals unwrought,' and, as the consideration thereof created a doubt as

'His opinion is to the effect that iron turn. ings are not dutiable as manufactured iron, partment therefore approved the appeal, nstructing the collector that the said iron turnings are dutiable at the rate of 20 per cent. ad valorem, as "metals unwrought and to reliquidate the entry and take the necessary steps for refunding the excessive

DUTY ON IRON CHAINS AFFIRMED.

The collector at Chicago having levied an assessment of duty of 21/2 cents per pound on certain imported chains, the appellants claimed payment of 45 per cent ad valorem, for the reason that the chains in question were manufactured in special lengths, for a special purpose, and were not adapted for general use. The appraiser reported that the articles were short lengths of chains made of iron wire less than 3/8 inch in diameter, and that they were classified under the provision "for chains of all kinds made of iron or steel " " less than 3% inch in diameter." The assessment was therefore affirmed.

IMPORTANT CONSTRUCTION OF TRANSPORTATION CHANGES

In establishing the dutiable value of certain imported Bessenier steel wire rods the department has submitted the following interpretation of the tariff statute:

These rods, it appears, were purchased at the works in various towns in Germany while the invoices were made out at Ant werp, from which port they were shipped to the United States. The question presented is whether the carriage from the works to Antwerp is to be included in the dutiable value. I reply that charges for transportation to the importing vessel are no longer liable to duty. The sole question to be considered is what is the actual market value or wholesale price of the merchandise in the principal markets of the country of exportation? If Antwerp is regarded as one of such principal markets, then the value of the merchandise in Antwerp at the date of exportation may be taken, which would naturally include the cost of prior transportation. The invoice in this case showed the price at Antwerp, which included the price at Antwerp, which included the charges, which charges the importers sought to deduct on entry, which deduction you restored and considered the invoice value the dutiable value. Your action appears to have been correct on the facts stated.

THE DUTY ON SHEET STEEL.

The United States Circuit Court for the Northern District of Illinois having heard a suit for refund of excessive duties assessed on certain sheet (clock spring) steel at 45 per cent. ad valorem, and having found that the article was in fact "steel, in sheets, valued at above 11 cents per pound," and that it was dutiable at the rate of 31/4, as claimed by the plaintiffs (the importers), and that it was dutiable at the rate of 3½ cents per pound and 10 per cent. under special provision, the department acquiesced in the findings and directed the collector to cause his practice to conform to such findings by classifying sheet (clock spring) steel of the character in question as steel in sheets at the rates of duty prescribed for "steel * * sheets of all gauges and widths." THE DUTY ON BRONZE STATUARY.

In appealing from an assessment of 45 per cent. ad valorem on certain pieces of bronze statuary, certified by a person describing himself as a "professional editor of sculp-ture" residing in Paris, and declaring that he sold them to the appellants, and that they were made by him and by his direction, and under his superintendence, from the originals, the question arose upon the construction of the court in the case of Tulton vs. Viti, in which certain marble statues were found to have been executed in the studio of a professional sculptor, and, under his direc-

a professional sculptor, and, under his direc-tion, by two other professional sculptors. The importer contended that the bronzes in question came within the description of works of art according to the above opinion. The department held that in that view most, if not all, the imported manufactures of bronze with which the shops are filled would be admitted at a lower rate of duty, and thus the evident intent of Congress in putting a much lower duty on statues which are professional productions of a statuary or sculptor than on other manufactures would be defeated. The decision states that bronzes only the work of a good artisan, to multiply finished from the foundry. With this view the department held that these articles of bronze statuary—copies of other bronzes—

The Morrison did not come within the provision (470) claimed under the new tariff act, but were dutiable as manufactures of metal under 216 T. I. The assessment of a duty of 45

per cent. was accordingly affirmed. A LOWER RATE ON STEEL TUBES.

The collector at New York having assessed a duty at the rate of 45 per cent. ad valorem on certain steel tubes which the appellants claimed to be dutiable either at the rate of 21/4 cents per pound, under the provisions for "other " " steel tubes or provisions for provisions for "other " " steel tubes or pipes," or at the rate of 10 per cent. ad valorem, under the provision for "forged shotgun barrels rough bored," the department sustained the appellants. The articles consisted of unfinished tubes or pipes of steel, which were intended to be manufactured by being cut into proper lengths, turned both in-side and out, and capped into magazines for breech-loading repeating shot-guns. The appraiser also concedes that they were "steel tubes," but classified them as manufactures of steel at a duty of 45 per cent. ad valorem. because the provision cited for "other " steel tubes or pipes" was taken by him as applying only to "welded or rolled iron or steel tubes that have not been either bored or finished in any manner to fit them for The department disapproved special use." the limited construction placed by the to the correctness of a previous ruling of officer named on the provision indicated, very spicy correspondence between a com-erly and carefully done, the fact that a cer-the department, the matter was referred to claiming that from the context it applies to mittee of Scotch ironmasters and Messrs. tain boiler is insured by a company is no Attorney-General." The decison continues:

which do not come within the category of "boiler tubes," whether finished or unbeing, as they are, the waste of iron in finished or designed for a particular purpose course of being manufactured." The deor not. The department decided that they were other than boiler tubes, and, reversing the action of the collector, ruled that they were dutiable at the rate of 2½ cents per pound

REVERSAL OF ASSESSMENT ON OLD YELLOW SHEATHING METAL.

On an appeal from an assessment of duty at the rate of 3 cents per pound by the col-lector at Boston, on certain imported old yellow sheating metal, the department de-cided that, as the said old metal was not specially provided for in the condition in which it was imported, it is dutiable at the rate of 20 per cent. ad valorem, under the provision for "metals, unwrought, not specially enumerated or provided for in this The article was not old copper, old brass or any other metal which is ated in the tariff acts on the condition in which this metal was imported, and being imported in the form of scrap or waste was fit only to be resmelted and remanufactured.

The action of the department in reducing the rate was chiefly based on a decision in 1862 on "old yellow metal," which was then held to be dutiable under the provision of the tariff for "metals, unmanufactured, not otherwise provided for," and to be metal unwrought or manufactured within the purview of a recent opinion of the Attorney-General on "iron turnings." In a similar case from New York, two days later, the case from New York, two days later, the assessment being the same on "old yellow metal," the appellants claimed that the article should be dutiable at 35 per cent. ad valorem. The department reiterated its decision of a rating at 20 per cent. ad valorem, but in view of the failure of the protest in the latter case to claim that rate duty, that decision was not held as extending to the merchandise in question. Therefore the assessment of the collector as New York of cents per pound was affirmed. This atter ruling was also applied to a still later importation of old vellow sheating metal of the same character, in which case the appellants by their protest claimed the article be dutiable at the rate of 1½ cents per pound as "old brass."

THE DEMOCRATIC CAUCUS ON THE MORRISON

March 25 .- The caucus of Democratic members of the House of Representatives met this evening. Of the 191 Democratic Representatives all except 10 were present. S. S. Cox presided. Mr. Morrison presented the following resolution, and advocated its adoption in a short speech:

Resolved, That the bill commonly known as the Morrison tariff bill shall be taken up for consideration at the earliest practicable day, and reasonable time for debate be allowed thereon, and after such debate that a bill be passed for the reduction of duties and war tariff taxes.

Speaker Carlisle made two speeches in support of the resolution. Mr. Randall made a short speech, mainly explanatory of his own position, but plainly indicative of opposition to the bill. Mesers. Eaton, of or opposition to the bill. Mess-rs. Eaton, of Connecticut; Tilley, of California; O'Neil, of Maine; McAdoo, of New Jersey; Wil-son, of West Virginia; Warner, of Ohio; Spriggs, of New York, and Hardeman, of Georgia, also spoke against the bill. Messrs Hutchins, of New York; Morse, of Massa-chusetts; King, of Louisiana; Holman, of Indiana, and Bland, of Missouri, spoke against making any cast-iron rule to gov-ern the action of individual Representatives. and Messrs. Reagan, Williams and others spoke in favor of the bill. Mr. Hopkins offered an amendment to Mr. Morrison's resolution, which was itself amended to read

as follows:
Resolved, Further, that the adoption of this resolution shall not be considered binding in controlling the individual action of Democrats except to the extent that each Member may feel that he ought to be influenced by the expressed opinion of the majority of

These resolutions were then adopted by a vote of 114 yeas to 57 nays, or exactly two to one. Speaker Carlisle then brought forward a proposition for a modification of the internal revenue laws, which is to be linked to the Morrison bill and share its fate. After

a short debate it was adopted by a vote of 88 yeas to 27 nays. It reads as follows:

Resolved, That in order to reconcile conflicting opinions, and to secure legislation reductions. are cast in molds, and that it does not require the professional skill of a sculptor, but ducing taxation, the plan for the reduction copies to any extent. Marbles are in all cases cut by hand, and, while they may be faithfully copied by good marble cutters, it is usual for the sculptor executing them to give them the finishing touches, which is not the case with bronzes, which usually come finished from the foundry. With this view

The Morrison bill will be thrown into Committee of the Whole probably next week, unless 35 Democrats can be found to vote against its consideration, and there will be a tedious debate. The caucus is described as a lively and interesting one, conducted with good temper by both factions, and unmarked by any exciting or disagreeable scenes.

CANADIAN GOODS IN TRANSIT. March 20.—The Treasury Department is onsidering a proposition to allow the considering a proposition to allow the passage of Canadian goods in transit through ertain portions of the United States without the usual customs formalities.

A CIRCULAR TO CUSTOMS OFFICERS.

March 21.-The Secretary of the Treasury has issued a circular prohibiting the dis-closure of sources of information respecting foreign market values and frauds upon the revenue, and directing that importers shall have full opportunity to sustain the values stated in their invoices.

THE LIFETIME OF A PATENT.

March 21.—The House Committee on Patents decided unanimously to report ad-versely Representative Anderson's bill to limit the lifetime of a patent to five years.

Having received a number of inquiries asking for the address of Mr. Allen, whose pamphlet entitled "Decline of American Shipping" we received a short time since, we would state that his address is John H. steel Allen, 134 Macon street, Brooklyn, N. Y.

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Analysis of Ores of Iron, Pig and Manufa tured Iron, Steels, Limestone, Clays, Blags and Coal for Practical Metallurgical Purposes.

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For those of unusual occurrence or difficult to determine, the charge must necessarily depend upon circumstances.

For determining the per cent. of Sulphur or Phosphorus in 170n or steel.

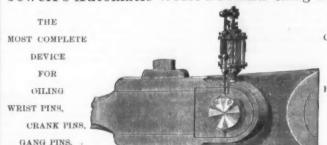
For each additional constituent of usual occurrences.

For the per cent. of Carbonate of Lime, and insoluble Silicious Matter in a Limestone. 10.00 For each additional constituent. 2.00 For each additional constituent. 2.00 For the per cent. of Water, Volatile Combustible Matter, fixed Carbon, and Ash in Coal. 12.50 For determining the constituents of a Clay, Slag, Coke, or of an Ash in Coal the charges will correspond with those for the constituents of an ore. For a written opinion or letter of instruction the charge must necessarily depend upon circum stances.

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The Superintendent of Department of Public Parks, New York City, wrote us as follows: "We are pleased to say that the six Horse Lawn Mowers you shipped this Department at the beginning



of the season have been thoroughly tested, and we consider them superior to any we have used. The Side-Draft Attachment, and the new Sectional Caster Wheels, fully meet our expectations. and prove very valuable additions. We have adopted your Mowers in preference to all others."

The 25-inch Mower is furnished with shafts when desired. Price, \$10. Horse Boots, per set, \$12. Full Directions for Setting-up, Adjusting and Using accompany each Mower. A trial is solicited.

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The American Shipbuilding Company's any part of the yard. A casual examina-Works.

We give in this issue two plans of the American Shipbuilding Company's Works at Philadelphia. The plan on this page represents all that remained on March 1, 1883, of a

OTS/ BATH STREET PROPERTY LINE OF SHIP-BUILDING COMPANY SWAMP 21 24. 17 5

TOOL INDEX. Blower.

1.—Garboard Bending Machine, Hand Power. Hand Power.
2.—Garboard Bending Machine,
Hand Power.
6.—Horizontal Steam Riveting
Machine.

7.—Angle-Iron Shearing Má-chine. 9.—Horizontal Punching Ma-

chine.
10.—Plate-Bending Rolls.
13.—Countersinking Machine

15.—Blower.
16.—Countersinking Machine.
19.—Shearing Machine.
20.—Punching Machine.
21.—Grindstone Box.
25.—Shearing Machine.
27.—Automatic Punching Machine.
30.—Plate-Bending Rolls.
31.—Punching Machine.
32.—Grindstone Box. –Engine. –Turn-Table. –Angle-Iron Furnace. –Plate Furnace.

DENTH AT LOW WATER SE TEET

Soot Masolas Sannoval Tible

PLAN OF AMERICAN SHIPBUILDING CO.'S WORKS, MARCH, 1, 1883.

shipyard that had been commenced in 1875 that has elapsed since the lease was acquired can be realized to a certain extent by a company. The flower parison with the plan on page 1; but no real preciation of the magnitude of the work is completed, owing to the financial embarrassments of that company. Disuse for so long a time naturally resulted in deterioration.

modern marine construction on the largest scale. The most important of these will be illustrated and described in future issues of

this paper.

The creation of a shipbuilding yard is not the only thing that has been accomplished. Believing that there was no better method of ascertaining the needs of a shipyard than building ships, Mr. Gorringe took contracts for building all classes of vessels as fast as he could get them. The tabulated statement below of the vessels built and building up to March I will indicate the capacity of the yard for future work. It illustrates also the field there is for the business. In the various types of vessels contracted for there eems to have been a deliberate purpose to provide for every form of construction of hulls and boilers, and to send a representa-tive of the new enterprise to as many different ports as possible.

A year ago iron shipbuilding in this country on a scale worthy of consideration was confined to three establishments. The demand for iron vessels has been steadily increasing for several years, and has now reached a point where ample business is as-sured to the new as well as the old yards. The last annual returns of our commerce and navigation indicate that there is still remaining under the American flag about 2,500,000 wooden sailing tonnage engaged chiefly in the coasting trade. Within a comparatively short time this must be replaced by vessels built of iron or steel, and it is not unreasonable to estimate an average annual construc-tion of 100,000 tons of iron or steel vessels during the next 10 years for our coasting trade alone. Wood as a material for ship-building is no longer economical. The wind acting on sails as a motive power cannot compete with railways in the commerce between our own ports. The relative value of wood and iron vessels is detertive value of wood and iron vessels is determined not so much by first cost as by cost of operation and repairs and durability. An iron vessel of exactly the same dimensions and model as a wooden one will carry about 27 per cent. more than the wooden, owing to difference in the weight of material used in construction; therefore, for equal carrying capacities iron vessels would be much smaller than wooden ones. The average life of iron vessels is more than double that of wooden ones, and the average annual cost of maintenance and repairs of iron vessels is about one-fifth that of wooden ones. Making due allowance for interest on the difference in first cost at present prices of material, the iron vessel is already the cheaper. Another and perhaps the most important consideration is the higher rates of freight paid to iron vessels and the lower rates for insurance. Grain freights from our Pacific coast average \$2 per ton more for iron hulls than for wooden, and this difference in the larger class almost covers the sailing expenses of the homeward trip. The iron age for ships is at last making progress on this side of the Atlantic, and the indications are that our shipyards are just entering the era of prosperity so long enjoyed by those of Great Britain.

INDUSTRIAL ITEMS.

MAINE.

The Portsmouth Wrench Company was recently organized at South Eliot, with a capital stock of \$150,000.

NEW HAMPSHIRE

Davis & Rollins's machine shop, at Nashua Davis & Rollins's machine shop, at Nashua, occupied by George A. Rollins, manufacturer of engines; R. W. Porter, manufacturer of bobbins and shuttles, and John Rich, manufacturer of files, was damaged by fire on the 25th inst. to the extent of \$25,000.

CONNECTOUR

The Gatling Gun Company, of Hartford, have received an order for 10 more guns for the Chinese Government, to be delivered in 60 days.

VESSELS BUILT AND BUILDING AT THE AMERICAN SHIPBUILDING COMPANY'S WORKS, PHILADELPHIA.

UP TO MARCH :

WATEN PIPES

= FRACEL

33.—Horizontal Punching Machine.

Pump. Boiler.

Blower.
-Lathe (not in position).
-Grindstone Box.

---- - MAST PIPES

	MoL	DED DIMEN	INTONIS.		Displace-	201 1	CARRYIN		
Type of Vessel.	Length.	Breadth.	Depth.	Register tonnage.	ment on load draft Tons.	M'ximum draft loaded.	Cubic con- tents of cargo space.	Dend weight in gross tons.	Time completed
Sailing Ship	256' 0"	42' 0"	250"	1896.	4,525	21'6"	159,400F	3,130	Nov., 1883.
2 Tug	93' 9"	20 0"	9' 10"	57.37	185	9'6"	4,679	46 tons coal.	Jan., 1884.
Sailing Ship	258 10"	42' O"	25 '1"	1930.	4,525	21'6"	159,400	3,130	March, 1984.
Tug	93'9"	20' 0"	9' 10''	57-37	185	9'6"	4,679	46 tons c al.	April, 1884.
Yachting Steam Launch	43' 0"	7'9"	4' 436"	5.5	11	2'6"			July, 1883.
Three-masted C. B. Schooner	134"0"	33' 0"	12' 8"	410.	980	11'6"	35,475	630	March, 1884.
Tender	75' 10"	18' o"	9'6"	35 -	112	7'0"		21 tons coal.	Dec., 1883.
Three-masted Keel Schooner	147 0	36' o"	17 6"	679.	1,580	16' 0"	64,522	1,170	April, 1884.
Tug	83 0	20' 4"	10' 1"	52.3	180	8' o''		16 tons coal.	March, 1884.
Freight Steamer	210 0"	33' 0"	17 0"	543 -	2,400	16' 0"	55,168	1,453	May, 1884.
Dumping Barge	111.0.	28' O"	12 0"	285.	820	II, O, ,	10,080	620	46 .44
Fruiter	185 O"	32'0"	19 235"	561.	1,675	16' o"	54,748	865 incl. coal.	Sept., 1884.
Stern-wheel River Steamer	go' o''	22' 0"	4' 3"	94 -	126	2'9"	6,700	59 incl. coal.	May, 1884.
Side-wheel River Steamer	110'0"	22 0"	8' 6"	114.	204	5 0"	8,200	98	66 64
Quarantine Tender	72 0"	16' 0"	7 9"	29.5	74	7 0"		8 tons coal.	June, 1884.
Freight & Passenger Steamship	271 0"	40' 0"	25 4"	1655.98	3,640	19'0"	147,665	1,720	Sept., 1888.

pipes had all been destroyed. All the small tools had been removed, and the few large least, skilled hands to use them were necesones that remained were incomplete and sary. It is reported that the property as it useless. There was no motive power or stood on March 1, 1883, had cost the Readuseless. There was no motive power or shorts, 1883, had cost the Reading for shops, and no cranes, shears, derricks or traveling cranes in place in the cost of improvements and Iron Works, at Trenton, announced on the purpose of manufacturing hardware nov- handled.

The buildings were partially unroofed, the be prepared to receive and operate the 110 building slips had decayed, the wharves and new machines that have been added to the bulkheads were unsafe to moor vessels to, and the blast, drainage and water-service needed for these machines had to be made

Messrs. R. H. Wolff & Co., Limited, who wire works at Peek skill were destroyed by fire some time ago, have made arrangements to have their goods manufactured in New York City, at B Jersey City, N. J. Bridgeport, Conn., and at

The Warwick Iron Company, of Potts town, have given their furnace employees notice of a 10 per cent. reduction in wages, to take effect on the 1st of April.

The American Tube and Iron Company, of Middletown, have been making experi-ments upon the use of basic Bessemer steel for boiler tubes, with the most satisfactory results. We have recently seen some test samples of these tubes which had been subected to very severe tests while cold, having been flanged, buckeled and flattened without giving any evidences of weakness. The basic steel used in the tubes is entirely of domestic make, being supplied by the Pennsylvania Steel Company. The experiments made with the English or foreign basic steel were unsatisfactory, as the steel was harder and difficult to weld properly, although when finished it was found to be quite ductile. The greater hardness of the English steel is due to its heing higher in center and above. the greater hardness of the English steel is due to its being higher in carbon and phosphorus, analysis showing the carbon to be about .08 per cent., while in the American it is hardly more than a trace. The phosphorus in the Haglish basic is about .14 per phorus in the English basic is about .14 per cent., against .02 to .03 per cent. in the American, while the manganese is practically the same in both, being about .30 per cent. Though the steel tubes are more expensive than wrought-iron ones, their superiority warrants their introduction, notwithstanding the increased first cost.

The growth of the Pennsylvania Steel Company's business is forcibly shown in the fol-

Towning thole o	t their annuars	eer production :
18671,005	187824,924	Gross tons,
18684,181	187429,281	1878 83,765
18697,097	187540,919	1879 92,486
187011,340	187656,268	1880

The Russia Mill, at Niles, was sold at commissioner's sale last week to H. B. Perkins for the First National Bank, of Warren. It is thought that the bank, which was the principal creditor, has a purchaser, and that the works will soon be started.

The machinery at Stewart & Co.'s lower mill, Easton, is being removed to the upper mill, which will be used as a wire instead of a rolling mill. The firm are making arrangements so as to increase their product of finished wire, and to increase the output of the barb fencing works.

The Baker car-link machine, which was tried at the Alientown Rolling Mills last week, is said to have proved a complete success. This machine will do away with making links by hand, and at the same time will make a much stronger one. The link is made from a billet which is drawn out into a bar 1½ x½ inches and 12 feet long. This is then coiled and welded, making a continuous weld, thus avoiding the ing a continuous weld, thus avoiding the old fault of having the weld in one place in the link, that being the weak spot. Several orders have been placed, and the railroad men that have seen the link and the mode of making speak approvingly of it.

The Allentown Rolling Mill Company, it is stated, have started up their Lehigh Mill, and are preparing to blow in one of their blast

The ground for the new steel works at Wampum has been staked off, and the contributions stipulated for from the citizens of Wampum have been made. Ground will be broken for the buildings in a few days.

Only one stack of Dunbar Furnaces is now in blast, Stack No. 2 being out for re-pairs. Last week Stack No. 1 turned out 570 tons of pig iron, or an average of 81 tons and a fraction per day, a very large run for a stack of its size. The greater portion of the ores used during last week were native ores.

PITTSBURGH AND VICINITY. The puddlers at the Elba Iron Works re-

turned to work last week, thus ending a two-weeks' strike. The men quit work on account of an order from the firm to begin work at 3 o'clock instead of 4 o'clock in the morning, as they objected to commencing their day's work so early in the morning. After standwork so early in the morning. ing out for two weeks, the matter was compromised and the strike ended.

Some of Singer, Nimick & Co.'s workmen are still out, the terms of the compromise apparently not pleasing them.

J. W. Friend & Co. have begun the erection of a large addition to their rolling mill at Saw Mill Run, and are pushing the work as rapidly as possible.

J. Painter & Sons inform us that there is no truth whatever in the report, recently telegraphed over the country, to the effect that they are about to commence the manufacture of hoop iron by a new and cheap process. They know nothing of any such process, and have no intention such as has een ascribed to them.

The account of the assignee of the Manchester Iron and Steel Company has been confirmed absolutely, and E. W. Smith appointed auditor to distribute the funds in the hands of the assignee

The Linden Steel Company have been run ning full time, and in a recent week got 18 heats from one of their open-hearth furnaces. The mill is run by natural gas, and has not een shut down a single day during the past two years.

OHIO.

A strike is in progress among the puddlers at No. 4 Mill of Brown, Bonnell & Co.. Youngstown, and the mill is idle. On March 20 a puddler was discharged, as the company claims, for making bad iron, but the puddlers claim he made good iron, and that his dis charge was not justifiable. Manager Williams insisted upon his discharge, and at the close of the heat all the men left their furnaces and refused to work longer. A meeting of the lodge has been called to consider the situation and decide upon future action.

made by the American Shipbuilding Company during the year is over \$250,000. Work until they get the price paid by other work until they get the price paid by other firms.

Many of the new machines have been especially designed to meet the requirements of modern marine construction on the largest.

The Warwick Iron Company, of Potts-Works are to be erected at once.

The announcement is made that Frank I. Chamberlain, a sportsman of Cleveland, has perfected a machine capable of charging 1500 shot-gun cartridges an hour. Cleveland and Pittsburgh capitalists have organized a company, with \$250,000 capital, to establish a manufactory at Cleveland.

A new Cleveland enterprise is the Brett Safe Company, whose certificate of incorporation was recently filed with the Secretary of State. The company, which has a capital stock of \$100,000, is incorporated by Thomas Brett, H. M. Claffen, J. C. Taylor, George A. Groot and John Coon, and will manufac-ture and deal in fire and burglar proof safes, vault doors and other iron work

WISCONSIN

Forty-nine men are employed in the shops of the Florence Iron Works, at Florence. The concern is now engaged in remodeling the machinery of the old Bay Furnace for the Iron River Furnace Company, besides doing other work for mines in that vicinity. ILLINOIS.

C. P. Willard & Co. have removed to their new factory at 280 to 284 Michigan street, Chicago, This building is seven stories high, 80 x 80 feet in size, and is arranged with every convenience. The machine shop occupies some 7000 square feet and has received a complete equipment including. ceived a complete equipment, including a new 50-inch chucking lathe and a 4-foot planer. This firm are adding a full line of planer. This firm are adding a run planer. This firm are adding a run planer. This firm are adding a run planer.

The Excelsior Stove Works, of Quincy, resumed on the 14th inst., the men going to work at the reduced rates agreed upon by the employers of molders in Quincy—15 per cent. off from the board prices.

At the Calumet Iron and Steel Company's works, near Chicago, 132 nail machines are now in operation, cutting 1200 to 1400 kegs per day.

The Millington Flint Glass Works is the name of a new industrial concern recently incorporated at Millington, with a capital of \$150,000. The business of the company will be the manufacture of flint-glass goods.

On March 15 a fire broke out in the elevator building connected with the blast fur-naces at the Joliet Steel Works, destroying the elevators and building and the wood-work and roof of the boiler and engine building The boilers are thought to be inbuilding The boilers are thought to be injured but slightly. The blast-pipes, engines and machinery are badly damaged. The entire loss is placed at \$40,000. The mills were ready to start up, but the fire will doubtless cause a little delay.

The Hercules Iron Works, of Chicago, are building the machinery for Lambert & Bish-op's new works at Joliet, Ill.

Charles Kaestner & Co., of Chicago, con-Charles Kaestner & Co., of Chicago, contemplate building a foundry of 7 or 8 tons capacity per day for their own use in the near future. They will also add a planer 6 feet square and 18 feet long, a Pitt lathe with an 8 to 16 foot swing, and other machinery. They are now putting in a combustion furnace of the Rose pattern.

The Chicago Forge and Bolt Company are receiving at their South Chicago mill liberal orders for bridge rods, building trusses, dock rods, &c. Spring orders are coming in early, and the works are running to their full capacity.

The E. T. Barnum Wire and Iron Works, of Detroit, have an order from J. F. Dunn, Ocala, Fla., for about 1000 feet of wroughtiron fence, to be used in inclosing an orange grove. The design is handsome, and the fence will be 6 feet high and cost \$1500.

The charcoal furnace of the Elk Rapids In charcoal furnace of the Elk Rapids
Iron Company completed on the 19th of
January its ninth blast. The total time run
on this blast was 503 days, and the following
figures will show the manner in which the
furnace has been working: Total amount of from made, 23,012 tons; average per day, 45 tons; best week's work, 383 tons; best day, 57 tons. The furnace measures 47 x 11 1/3 feet.

WEST VIRGINIA.

A new nail factory is to be built by the Belmont Iron Works, near Wheeling, which is to take the place of their old one. The tructure will b of iron built after the tern of the Jefferson nail factory, and will be fire-proof. The building wide by 200 feet long. The building will be 120 feet o feet long. The erection of the factory will be commenced in a short time, and will not interfere with the working in the old factory.

ALABAMA.

The Coosa Furnace, at Gadsden, which was destroyed by fire some months ago, has been rebuilt, and was put in blast last week on charcoal pig iron. The old buildings were wooden, but the new structure is composed of brick and iron. This furnace is owned by the Coosa Furnace Company, of which the president is A. J. Crawford, of Terra Haute, Ind.; the secretary is E. G. Eaton, of Gadsden, Ala.; and the treasurer is R. P. Gobin, also of Gadsden.

CALIFORNIA.

About 250 men are now employed cutting wood and burning charcoal for the furnace at Hotaling. Heretofore the company have burned their charcoal in kilns located through the timber land at certain intervals, and the average cost per cord for hauling the wood to these kilns was about \$1. This year they are trying the experiment of using "ground-pits," which can be quickly established in any locality at slight expense, and to which the wood can be delivered at something like 25 cents a cord for hauling. In about two months, when the roads have become sufficiently dry, so that the charcoal can be trans-ported to the mine at a reasonable cost, the smelting works will be started up, and it is the intention to have enough charcoal on hand hereafter to keep them in operation The Manning Novelty Company, a cortain with a capital of \$10,000, was sands of tons of ore out, and much more

LAWN MOWERS

As the season for the use of Lawn As the season for the use of Lawu Mowers is at hand, we give our readers in the following article a general view of the principal styles which are on the market, with a somewhat full description of the construction and peculiar features of the different machines. In this branch of manufacture there has been so rapid an advance, and the lawn movers are brought to such and the lawn mowers are brought to such a degree of comparative perfection, that we do not undertake to pronounce upon the relative excellencies of the competing ma-chines, but are satisfied to give a description



Mowers. - Fig. 1. - Excelsior Side Wheel.

the mower and allowing it to rest on these wheels it can be trundled about from place to place, and thus save a great amount of wear on the general machinery.

12. Each part is numbered or lettered, and of each somewhat in detail, the subject matter of which has been furnished by the manufacturers themselves. It would have been pleasant if we could have permitted them to indulge in generous commendation of their own machines, each own extolling the incomparable durability, ease of working, superiority of workmanship and quality of superiority of his own machine,

but, as these are claims which happily are made by every one of the manufacturers, the pub-lication of them would not have been of especial service

to the trade, and certainly would not have furnished as much informawould not have furnished as much informa-tion as the plain, impartial and somewhat technical descriptions which we here lay before our readers. We are compelled by lack of space to lay over until next week the description of the different horse lawn mowers. Information with reference to prices will be found under the head of General Hardware.

The Chadborn & Coldwell Manufac turing Company.

Newburgh, N. Y., are well known to the trade as leading and among the earliest manufacturers of mowers, whose goods have been for a long time on the market in this country and are shipped extensively abroad. T. P. Burke, 100 Chambers street, is their agent in this city. Their circulars for ex-port trade, which are before us, show the



Fig. 2.-Excelsior Roller

styles of the mowers which they sell in Europe, and indicate the extent of their business in this department. They have a house in London established exclusively for the sale of their mowers, and make a variety of styles which are suited especially for the English market. The machines of their manufacture which are made for the home market are the Excelsior Side-Wheel Mower, the Excelsior Roller Mower and the Clipper Mower (v hich are all operated by hand) and the Excelsior Horse Mower. The Excelsior Side-Wheel Mower, Fig. 1, is

one of their leading styles, and is made of the following sizes—10, 12, 14, 16, 18 and 20 inch. The manufacturers specify the following points of merit in this machine:

Lightness of draft. Patent self-cleaning gear, which can-

not clog.
3. Noiseless ratchet, without spring or



Fig. 3 - New Clipper

4. The knives are fastened with screws (not riveted); hence can be taken of or replaced.
5. The revolving cutter or wiper is so co

structed that the weight is in the periphery or outer edge, where the strength is needed, and thus serves as a balance-wheel

6. The journals are bushed with split bush-

It has patent-laid steel knives. steel, the manufacturers mention, is rolled to order in Sheffield, and is made by a patent

Fig. 4 .- Pennsylvania

ing a very thin layer of very fine steel on the cutting face of the knife, which keeps the cutting edge more prominent, and facilitates the process

of self-sharpening.

9. The cutter being in the front, the mower will cut close to a fence

or other obstacle, thus saving a great

is interchangeable, so that in case of break-age it can be easily replaced.

Fig. 5 .- Quaker City.

The following points of merit are made in its

favor by the manufacturers:

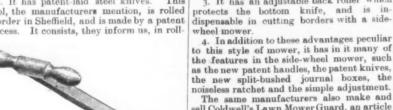
1. That it is the lightest-draft roller mower

That the gears are perfectly covered.
 That all its adjustments are very

the ordinary lawn.

can possibly

amount of trimming.



4. In addition to these advantages peculiar to this style of mower, it has in it many of the features in the side-wheel mower, such as the new patent handles, the patent knives, the new split-bushed journal boxes, the noiseless ratchet and the simple adjustment. The same manufacturers also make and sell Coldwell's Lawn Mower Guard, an article which is designed for the protection of plants, flowers, shrubs, trees, &c.. This simple contrivance, which is the invention, we be-



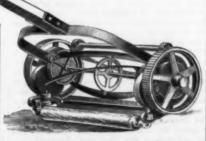
lieve, of Mr. Coldwell, was patented only year ago, and is, we are informed, finding favor with trade, and especially with some large horticulturalists, as a simple and useful article. It is made of the following sizes:
10, 12, 14, 16, 18 and 20 inches, and can be applied not only to the Excelsior Mowers but to any of the standard machines.

The Pennsylvania Lawn Mower

is made by the Lloyd & Supplee Hardware Company, 625 Market street, Philadelphia, Pa., for whom Durrie & McCarty are agents in this city, at 97 Chambers street. This machine is recovered to the street. machine is represented in the accompanying illustrations, which show the following styles: The Quaker City, Fig. 5; the Pennsylvania Lawn Mower, Fig. 4, and the Pennsylvania Lawn Mower for high grass, Fig. 6.

The Quaker City Lawn Mower is put on the market to meet the demand for a machine to lower specific contents.

machine at a lower price than the standard mowers, and is made of the following sizes:



4. That it rolls the ground at the same time it is cutting the grass. 5. That it cuts borders as well as it does 10, 12, 14 and 16 inches. The manufacturers claim the following advantages as possessed by this mower over other center-cut mowers: 6. That having a roller it leaves the lawn smoother and better than wheeled mowers That they are easily adjusted to cut long or short grass; that they will cut over knolls, ridges or terraces; that they have not only That the improved three-panel noiseless

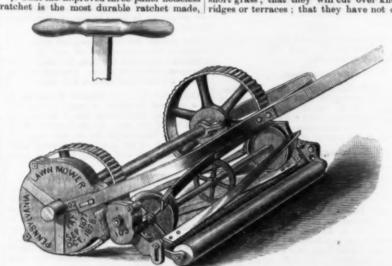


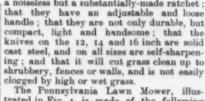
Fig. 6.—Pennsylvania for High Grass.

having no springs or other parts liable to get, a noiseless but a substantially-made ratchet;

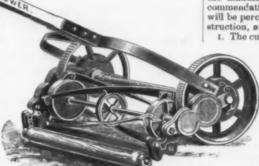
points of merit and improvement enumerated

out of order.

8. That, in addition to these, it has all the handle; that they are not only durable, but in the side-wheel mower. The manfactur-ers consider this machine, for variety and



trated in Fig. 4, is made of the following sizes: 10, 12, 14, 16 and 18 inches, and is the



or that by tightening one screw they can be taken up to compensate for wear.

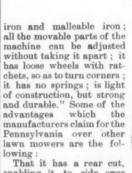
7. Their patent single-screw adjustment, which they claim is the simplest adjustment adapted for terraces and uneven ground.

2. It has a front bar which protects the cutter from striking trees or other like work that all sizes—10 to 16 inch—can be taken up to compensate for wear.

3. The mowers are so light and easy to grounds and medium size lawns, while the 14-inch work that all sizes—10 to 16 inch—can be taken up to compensate for wear.

4. Independent internal gears separate.

and 18 inch machines, they say, are adapted for large lawns. The structure of the machine is thus described in the report of the Pennsylvania State Agricultural Society, 1879: "Open wiper or cutter bars; skeleton cylinders with four knives; small journals and long bearings, thereby reducing friction. 3. It has an adjustable back roller which The machine is constructed of steel, wrought



enabling it to ride over uneven surfaces, adapting itself to the same, and cutting the grass over the uneven ground.

That in an exceptional degree strength in construction is combined with lightness.

That it runs more easily than other machines, the 14-inch Pennsylvania, in their judgment, running with more ease than the 12-inch of other styles of mowers.

That it will cut longer grass, is more dur-

able, requires less repairs, cuts the grass

will cut on terraces and borders and close to

Mast, Foos & Co.

are manufacturers of the well-known Buckare manufacturers of the well-known Buckeye Mowers, at Springfield, Ohio. They make two styles, the Buckeye Junior, which they manufacture of 10, 12 and 14 inches, and the Buckeye Senior, of which they make five sizes of 10, 12, 14, 16 and 18 inches. In describing the Buckeye Junior, shown in shown in Fig. 9, which is their cheaper and lighter machine, they mention as points of superiority the following special features:

1. Its center cut, enabling it to be used on uneven surfaces, cutting over knolls and

uneven surfaces, cutting over knolls and

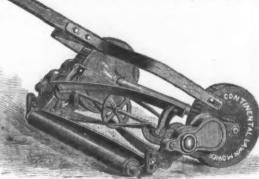


Fig. 8 .- Continental, Usual Style

ridges in the lawn, close up to walks and

down terraces.

2. The position of reel and ground wheels, so that the mower can be run up close to stone walls, board fences and foundations of houses, the ground wheels projecting beyond and protecting the reel knives from injury, at the same time cutting all the grass and dispensing with the use of the grass hook in trimming out after the lawn is cut.

3. Guards on the side-plates to prevent the grass from winding round the reel-shaft.

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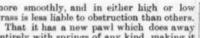
machin est sp bocker same work i

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The

The gearing is so perfectly incased that it is impossible to clog them with cut grass.

4. The hub of ground wheel turning inward, increasing the length of bearing and leaving outside of stud flush with face of ground wheel, and making the machine shorter and more compact, with a president. shorter and more compact, with no projec-



more smoothly, and in either high or low grass is less liable to obstruction than others.

That it has a new pawl which does away entirely with springs of any kind, making it almost noiseless, and a new clamp attached to the shaft, making it impossible for the clamp to slide on the shaft.

The Pennsylvania Mower for cutting high

grass is made of 15 and 17 inch, and is claimed to cut grass when 6 to 10 inches high. Its general construction is similar to the one we have just described, but instead of having, like that machine, 8-inch wheels, it has 10½-inch wheels and a 6-inch open cylinder. Its general appearance and construction may be apprehended from the accompanying illustration, Fig. 6.

The manufacturers mention that the sales of the Pennsylvania Lawn Mowers are inor the Fennsylvania Lawn Mowers are increasing every year, showing, in their judgment, that the open wiper, with solid cast-steel knives, is a feature commending itself satisfactorily to the trade and the users of lawn mowers. They add that in England the Pennsylvania Mower is held in high regard with an increasing demand each sucgard, with an increasing demand each suc-

cessive season. Orders have been received from France, Russia, Australia and Africa— a fact which they mention with satisfaction, as showing the widespread popularity which their mower has attained.

5. All the bearings in the mower are long,



Fig. 9.—Buckeye Junior

tion to tear the bark off young trees or shrubbery.
5. Hight at which handle is carried does

ot affect hight of cut.

6. By placing the improved positive noise less clutch without springs or pins in the ground wheel instead of in the reel pinion, the gears remain stationary when mower is drawn backward, thus saving nearly one-

half the wear of gears.

In describing the Buckeye Senior, Fig. 10, the manufacturers mention the following

points of excellence:

I. The novel combination of ground wheels and internal gears. The hub of ground



wheel turning inward and forming a journal



Fig. 11.—Buckeye Junior with Grass-Box.

more compact, with no projection to tear

and by a patented process; are self-sharpening, and do not require a file or stone after leaving the factory. mention, they are enabled to get an im proved positive and noiseless clutch in driving-wheels without pins or springs By so that the wear on the mower will be slow

4. Independent internal gears separate

Fig. 10.—Buckeye Senior

for the hub of internal gear shortens the stud on the side-plate, yet increases the length of bearing for ground wheels, leaves outside of stud flush with face of ground wheel, and makes the machine shorter and



no spring, and the mower is practically silent in its opera-4. The cylinder knives are

the bark of young trees or ahrubbery.

2. By the above novel combination, they

and oil seldom required.

6. The mower is made to run at high wheel in-tead of in the reel pinion the gears speed, and will not only cut higher grass, but remain stationary when the machine is drawn backward, thus saving nearly one-half

The Continental Lawn Mower. This mower is made in Philadelphia by the Continental Lawn Mower Company, for whom W. Dodman is agent in this city, at 107 Chambers street. It is made in two styles, one for general use, of which five sizes, 10, 12, 14, 16 and 18 inch, are made, and the other, for high grass or uneven lawns, of which there are three sizes, viz., 15, 17 and 19 inch. The two machines are 15, 17 and 19 inch. The two machines are clearly represented in the accompanying very satisfactory illustrations, Fig. 8 showing the more usual style, and Fig. higher and open wheel, the one which is made for the high grass. Among the special points of merit which the manufacturers make in description and commendation of these machines, which it will be perceived are almost identical in construction, are the following:

1. The cutting-bar in the rear, the mower thus adapting itself to any un-evenness in the ground. 2. The gearing is completely covered, rendering clogging impossible. 3. The ratchet or pawl has

Fig. 7 .- Continental for High Grass.

perfection of work, to be the best mower in the market, although heavier than the side-Their New Clipper Mower is a machine

which has been placed on the market to meet the demand for a lawn mower that sould be sold at a reduced price, and is represented in Fig. 3. The manufacturers mention that this machine as offered for the coming season has been very greatly improved as to simplicity of adjustment, lightness of draft, and durability, all of which qualities in the machine are fully guaranteed. It is made to cut 10, 12, 14, 16, 18 and 20 inches. In commendation of the New Clipper they enumerate the following points of ex-

1. The revolving cutter is placed in the center of the driving-wheels; hence it is admirably adapted for terraces and uneven

machine which the manufacturers especially recommend as being, in their judgment, un-surpassed by any in the market. The 10- and oil se dom required. inch machine they recommend as one that can be used with ease by a lad, and monand the blades can at any time be removed.

Adapted to cut high, steep terraces with

ope attachment."

The Blair & Fiske Manufacturing Com-

pany write us that they find a constantly in-creasing demand for their mowers, and mention that they spare no pains in their manufacture, subjecting them to a most severe

inspection and test before they leave the factory, adding that the inspector's signature is applied to each machine on the under

ide, so that should any fault escape their

notice they know where the responsibility rests. We may add that their circular, which is fully illustrated, contains cuts of the different parts of their machines and the prices at which they are sold.

Hill's Archimedean Lawn Mower Company

are the manufacturers of the Charter Oak,

President and Daisy Lawn Mowers, at Hart-ford, Conn., and are represented in this city by Graham & Haines, 107 Chambers street.

The President Lawn Mower, shown in Fig. 22, is one of their leading styles, and is

Fig. 20.-New Charter Oak.

described as having a double drum and selfadjusting handle and a ratchet which is claimed to be noiseless The manufacturers

claimed to be noiseless. The manufacturers mention that it is adapted to do good work on any variety of lawns, and especially suitable for croquet grounds, the roller keeping the surface smooth and even. The machine can be used with or without the grass boxes, and all its parts are interchangeable.

changeable.

The Charter Oak Lawn Mower, Fig. 20, is described as mounted on two broad driving-wheels in the rear of the knives, the point being made in its favor that it does not

roll down the grass before cutting. The gearing is completely inclosed in the frame

f the mower, so that it is not liable to be clogged by grass or dirt. The manufac-

from the ground wheels, perfectly incased to prevent gravel, dirt or grass from being carried into them by the ground wheels.

5. Adjustable boxes of reel-shaft, to take up lost motion occasioned by wear of boxes



Lawn Mowers.-Fig. 12.-Knickerbocker.

6. Has an adjustable roller running the placed without disturbing any other portion entire width of the machine, to regulate the of the mower; and they remark that any one

It has adjustable handles, and adapts itself to irregularities of the surface.

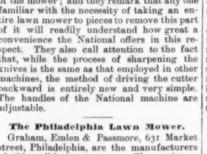
8. Easy of work, and not liable to get out

of order.

Mast, Foos & Co. are also the manufacturers of a Grass Box, which may be fitted

of the mower; and they remark that any one familiar with the necessity of taking an entire lawn mower to pieces to remove this part of it will readily understand how great a convenience the National offers in this respect. They also call attention to the fact that, while the process of sharpening the knives is the same as that employed in other machines, the method of driving the cutter backward is entirely new and very simple. The handles of the National machine are adjustable.

Graham, Emlen & Passmore, 631 Market street, Philadelphia, are the manufacturers of this well-known mower. They write us that in 1867 the retail price of a 14-inch hand lawn mower was about \$65, and the number sold in the United States per annum about 300: that in 1868 the price was re



The National Lawn Mower, Fig. 13, which,

Fig. 13.-National. to either of their Senior or Junior machines: and is represented in the accompanying illustration, Fig. 11. These manufacturers advise us that the outlook for trade on their lawn mowers for the present season is quite encouraging, and mention that the Buckeye is meeting with great success and gaining friends rapidly with the jobbing and retail trade, as well as the users of mowers, a fact which they account for by the satisfactory quality of their machines.

perform their work with the same perfec-

size, yet very strong, and absolutely certain of operation in

all positions. They are the connecting motor between the driving-wheels and knives, and

bear the entire strain and more wear than any other part. Hence the frequent repairs required to the common ma-

chines in market, all of which have the ratchet and pawl located in that portion of the

Previous to the invention of the Philadelphia, they continue, the cutters of hand lawn mowers were driven by exposed gearing actuated by a heavy cast-iron roller placed in the rear of the cutters, making a heavy, hard working and unhandy tool, and, owing to the faulty construct on of the wiper, it

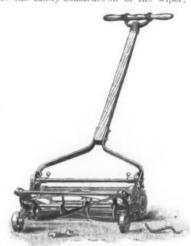


Fig. 18.—The Easy, 16-Inch.

was almost impossible to keep the knives in order.

The construction of the Philadelphia is entirely different. As will be seen by reference to the cuts, the frame is supported between two driving-wheels, either of which gives motion to the cutters by gearing cast on the wheel and meshing into a pinion on on the wheel and meaning into a pinion on the wiper-shaft. The cutters are placed in the rear of the axis of the wheels, so that they can rise and fall to the undulations of the ground, the handle being hinged to the frame so as to permit this. The hight of cut is regulated by a small adjustable roller in the rear of the cutter. As mentioned above, the frame of the wiper is made of one piece

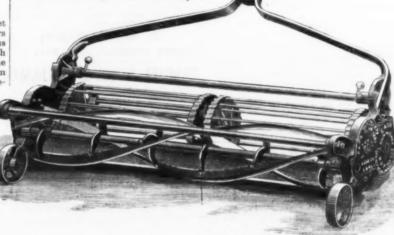


Fig. 19 .- The Easy, 40-Inch.

Carr & Hobson.

47 Cliff street, New York, are the manufacturers of the Knickerbocker and the National Lawn Mowers, for which they make special claims. The Knickerbocker, which is represented in Fig. 12, is, it will be perceived, a roller machine, and is made of the following sizes: 10, 12 and 14 inches. The special features of its construction are described as follows by the manufacturers:

The patented revolving cutter consists of but four parts, as compared to 16 in the simplest of other makes, and is constructed entirely of the best plate shear steel. These vantages, among which they mention:
That besides the supporting wheels there

For this construction they claim many ad- | be apprehended from the illustrations. Of be apprehended from the illustrations. Of these mowers the following sizes are manufactured, 10, 12, 14, 16, 18, 20, 24, 30 and 40 inches, the 16 inch being represented in Fig. 18 and the 40-inch in Fig. 19. It will be perceived that the Easy is of the style known as a roller and forward-cut mower, and the manufacturers enumerate among and the manufacturers enumerate among its excellences that it can be used to cut

> construction of the roller it will cling to terraces, giving it, in their opinion, an advantage in this respect over

> any other mower on the market. They lay emphasis also on the point that the handle

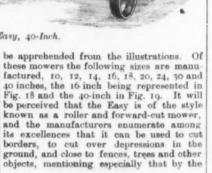
> is capable of instantaneous removal, and that the Easy

mowers cut within an inch of

each extreme outside. They also mention that this mower,

unlike others in the market, does not require to be taken apart preparatory to grind-ing the knives, and in their

circular they explain the operation of sharpening, which is accomplished by



small lawn; it is made 10 and 12 inch cut The style M, Fig. 14, is a heavier and more durable machine, and is used on lawns of

M acre and over, and is used on lawns of M acre and over, and is made 14, 16 and 18 inches cut. Style H, Fig. 15, is a higher-speeded machine, and is recommended by the manufacturers where very fine work is wanted, the slight increase in draft being

wanted, the sight increase in draft being spoken of as scarcely noticeable.

The City Lawn Mower is a lower-priced machine, the construction of which is indicated by the cut, Fig. 17. It is made 10,

12 and 14 inches.
The Grass Edger, Fig. 16, explains its use and construction, being intended to take the place of the grass hook and hand shears

for cutting the overhanging grass around the edges of flower beds, walks, drives, &c. Its weight is 16 pounds.

The Easy Lawn Mower

is made by the Blair & Fiske Manufacturing

Company, of Springfield, Mass. The appearance and construction of the mower will



changeable.

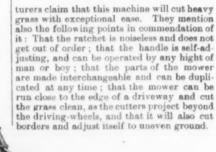


Fig. 22.—President

der a reverse motion. Full directions for the operation, as well as suggestions with reference to the use and care of the machine, are given. In their description they mention concisely the following meritorious points:

"Powerful traction. Steel open roller. Silent in operation. Extremely light, rigid and durable. All sizes easily operated with one hand, even at 45° angle on terraces. Handle especially adapted to be applied or removed in an instant, making it convenient for stowing the mower away. Lifting cutters for protection. Cuts over large holes and to within 1 inch of each extreme outside. Cuts The Daisy Lawn Mower, shown in Fig. 21,

for protection. Cuts over large notes and within 1 inch of each extreme outside. Cuts borders. Hooking knives easily sharpened. Machine always ready for grinding the upon all machines used by their employers, all Machine always ready for grinding the knives. Lower knife quickly adjusted. All hardened. Projected journals and oil holes. Hardened and inclosed truck-wheel journals. Front brace on all above 16-inch cut.



Fig. 14.—Philadelphia, Style M.



cutters can be ground down more than which previous to 1868 was made by riveting | machine and push of the workman rest on twice the distance that actual wear or even or keying the steel blades to the rings or the wheels, leaving the cutter to just skim careless usage will ever require, and yet will spiders fastened on a shaft. Made in this way they mention that there were serious dulations of the ground without pressing on it.

The manufacturers then, mentioning that they give special attention to the temper of



located in that portion of the machine which runs at the highest speed. In the Knicker-bocker the ratchet only revolves at the same velocity as the drum. These ratchets work independently with the mower in any position and on quarter-turns. The drum is divided in all sizes, each half being directly connected with the cutter, and will drive the machine when working on sides of borders, &c.



the blades, and use only the finest and toughest steel, "appeal to the 150,000 Philadelphia machines in use" as the best evidence of their popularity and value.

The Philadelphia Lawn Mower, style D,



is a light machine intended for

New.
New.
New.
ad-hand.
New.
ad-hand.
ft. 2d-hd.
ft. 2d-hd.
ft. 2d-hd.
ft. 2d-hd.
New.
New.
New.

Special Notices.

NEW AND SECOND-HAND

MACHINERY.

i Gap Lathe, ? ft. 8 in. swing. Second-hand.
? Pit Lathe, ? ft. 8 in. swing. Second-hand.
? Pit Lathe, ? ft. 8 in. swing. St. bed. New.
1 Engine Lathe, 20 in. swing, 2 ft. bed. 2d-hand.
2 Engine Lathe, 20 in. swing, 2 ft. bed. 2d-hand.
2 Engine Lathe, 20 in. swing, 2 ft. bed. 2d-hand.
2 Engine Lathe, 20 in. swing, 2 ft. bed. New.
2 Engine Lathe, 19 in. swing, 7 ft. bed. New.
3 Fingine Lathe, 19 in. swing, 7 ft. bed. New.
4 Engine Lathe, 19 in. swing, 2 ft. bed.
5 Engine Lathe, 19 in. swing, 2 ft. bed.
6 Engine Lathe, 19 in. swing, 2 ft. bed.
6 Engine Lathe, 19 in. swing, 2 ft. bed.
8 Engine Lathe, 19 in. swing, 2 ft. bed. New.
1 Engine Lathe, 19 in. swing, 2 ft. bed. New.
1 Hand Lathe, 10 in. swing, 2 ft. bed. New.
1 Hand Lathe, 10 in. swing, 3 ft. bed.
1 Hand Lathe, 10 in. swing, 3 ft. bed.
1 Hand Lathe, 10 in. swing, 3 ft. bed.
1 Hand Lathe, 6 in. swing, 3 ft. bed.
2 Hand Lathe, 3 in. swing, 3 ft. bed.
3 Hand Lathe, 6 in. swing, 3 ft. bed.
3 Hand Lathe, 6 in. swing, 3 ft. bed.
4 Iron Planer to plane 30 in. x 3 in. x 10 ft. 3d-hand.
4 Iron Planer to plane 30 in. x 3 in. x 10 ft. 3d-hand.
4 Iron Planer to plane 36 in. x 3 in. x 10 ft. 3d-hal.
4 Iron Planer to plane 36 in. x 3 in. x 10 ft. 3d-hal.
4 Iron Planer to plane 2 in. x 3 ft. x 3 ft. New.
5 Iron Planer to plane 2 in. x 3 ft. x 3 ft. New.
6 Iron Planer to plane 2 in. x 3 ft. x 3 ft. New.
6 Iron Planer to plane 2 in. x 3 ft. x 3 ft. New.
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6 Iron Planer to plane 2 in. x 3 ft. New.
6 Iron Planer to plane 2 in. x 3 ft. New.
6 Iron Planer to plane 2 in. x 3 ft. New.
7 Iron Planer to plane 2 in. x 3 ft. New.
8 Iron Planer to plane 2 in. x 3 ft. New.
8 Iron Planer to pla

Special Notices.

For Sale or Exchange.

A party owning a complete Plate and Sheet Mill as per following list, will sell the whole or part of it for cash and long-time payments, or will exchange for Real Estate desirably located in any of the following cities: New York. Chicago, St Louis or St. Paul.

of the following cities: New York, Chicago, St.
Louis or St. Paul.

1 Train of Lauth's 24-in. 3-high Rolls.

1 Train of 2-high 22 in. Plate and Sheet Rolls and
Duplic te Rolls.

1 Train of 20-lin. Soft Rolls and Duplicate Rolls.

1 Compound 18 in. Muck Train and Duplicate Rolls.

1 Large Engine. 32 x 42, horizontal, 20-ton fly,
doubly braced, wheel 12-in. face

1 Large Rotary Squeezer for 150 lb. Ball.

1 Large Roll Turning Lathe for Turning-up Rolls.

1 I arge Pump.

2 Large 'rance for Handling Housings and Rolls.

1 Plate Shear to shear as high as ¼-in. Plates.

2 Sheet Shear.

2 Shaping Shear.

2 Muck Shear.

3 Scrap Shear and Engine.

3 Lurge Sturtevant Blower and Pipe.

3 Blacksmith's Drill.

Furnace Plates for 8 furnaces, including Annealing and Pair Furnace.

Furnace Plates for 4 Charcoal Fires, including Valves, &c.

Valves, &c.

Battery of 3 extra flange Fire-box Boilers; size, 28 ft. by 48 ln.; 2-flue 16 in., to operate together or separate; with all connections.

Large Boiler, fire-box metal, 28 ft. by 42 ln., or

44 in.
4 Small Boilers, 22 ft. by 42 in.
4 Small Boilers, 22 ft. by 42 in.
1 Track Scale, Wagon Scale, Mill Scales, Tools,
Tramways, Buggles, Patterns, &c.

H. W. WHITLOCK. 130 Dearborn St., Chicago,

Trustee's Sale

OF THE

STOCK, MACHINERY AND PATENT RIGHTS

OF THE

KLOMAN ESTATE.

The undersigned will receive bids for the stock of nished and unfinished structural and other iron, cast and wrought acrap, machinery, tools. &c., including rolls, shears, boilers, furnace fixtures, &c., the property of the Trustee of the estate of A. Kloman,

Also for the UNIVERSAL MILL PLANT built expressly for the manufacture of eye bars by the late Andrew Kloman, together with the LETTERS PATENT for manufacturing the same. The Universal Mill will be sold separately from the other

Circulars giving detailed description will be sen to any address by

W. S. MACKINTOSH, of Mackintosh, Hemphill & Co. (Limited), Trustee, Pittsburgh, Pa.

DIS=OLUTION.

The partnership heretofore existing under the name and style of tweerson, Macrum & Co has this day been dissolved by mutual consent. All accounts with said firm will be settled by Mr. Barclay H. Everson, at office of Pennsylvania Iron Works, Second Avenue, Pittaburgh.

W. H. EVERSON, WALTER T. BROWN, C. L. GRAFF, JOHN Q. EVERSON.
Pittaburgh, 15th March, 1884.

Pittsburgh, 15th March, 1884.

PENNSYLVANIA IRON WORKS,
PITTSBURGH, March 19, 1884.

CO-PARTNERSHIP.

The undersigned, having succeeded to the ownership of the Pennsylvania Iron Works. Second Avenue, Pittsburgh, Pa., have formed a co-partnership under the name and style of Everson, Brown & Co., for the purpose of continuing at said place the manufacture of Light Sheet Iron and other branches of theiron business. The high repu'ation gained for our Roofing Sheets (of which we make a specialty) will be maintained. Said co-partnership dates from March 15, 1884.

WALTER T. BROWN, JOHN Q. EVERSON.

CO-PARTNERSHIP.

The undersigned, having succeeded to the ownership of the Scott-dale Rolling Miti plant, in Westmore-land and Payes to counties, have this day as-sociated themselve-together under the firm name of Wm. H. Everson & Co. for the continuance of the manufacture of Iron. (Light Sheet Iron, Black and Calamined, our specialty).

C. I. GRAFF.

Wanted.

Agents to sell Tubular Lantern Lighters everywhere. Fits all styles. Sells at 25 cents. 250 matches, 10 cents per box. Old styles made better than new. Self-Trimming, Self-Lighting Lamp Burners; turn a key and lamp is instantly tighted. Also the best Tubular Lanterns on this earth, and five other valuable inventions. Hardware Commercial men, please notice Chicago office discontinued. Audress. C. H. TYLER, 76 Beekman Street, New York.

Special Bargains in Machinery. 2 Rotary Pumps, \$15 each. Steam and Bolter Feed Pumps Bolt Cutter. ¾ to 1½ in., gear-d, \$75. 2 Portable Holating Engines, \$300 and \$350. \$1.-P. Engine, \$125; 10 H.-P., \$100; 25 H.-P., \$175; 20 H.-P., \$300. Second-hand Engine Lathes, 10 to 30 in. swing; 3d-hand Flaners, 6 sizes: Drill Presses, 6 sizes: Punch Presses. All practi-cally good as new. Also full assortment NEW Drills, "lathes, Engines, &c., &c. AMERICAN TOOL CO., Cleveland, Ohio.

Ore Washer

FOR SALE.

15 ft. long, 316 ft. diam.; in good order. Will be sold cheap. Address "ORE WASHER,"

Office of The Iron Age, 220 S. 4th St., Philadelphia.

Shear Wanted.

Second-hand Shear capable of cutting Sheets or Plates up to % thick. Knives not less than 24 inches long. Address,

OLIVER BROS. & PHILLIPS,

Pittsburgh.

Wanted.

A position as MELTER ON OPEN HEARTH FURNACE.

Can give good references

Address "MELTER." Office of The Iron Age, 83 Reade Street, New York.

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New & Second-Hand Machinery

New & Second-Hand Machinery

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| Engine Lathe, 10 in. x 3% ft. |
| each, Engine Lathes, 11 in. x 4 and 5 ft. |
| each, Engine Lathes, 11 in. x 5, 6 and 8 ft. |
| Engine Lathe, 16 in. x 6 ft. |
| each, Engine Lathe, 16 in. x 6 ft. |
| each, Engine Lathe, 18 in. x 6, 8, 10 and 17 ft. |
| each, Engine Lathe, 18 in. x 6, 8, 10 and 17 ft. |
| each, Engine Lathe, 18 in. x 6, 8, 10 and 17 ft. |
| each, Engine Lathe, 18 in. x 6, 8, 10 and 17 ft. |
| each, Engine Lathe, 18 in. x 6, 8, 10 and 17 ft. |
| each, Engine Lathe, 18 in. x 6, 10, 12, 14 and 16 ft. |
| each, Engine Lathe, 18 in. x 6, 10, 12, 14 and 16 ft. |
| each, 18 in. x 6 in. x 8, 10, 12, 14 and 16 ft. |
| each, 18 in. x 6 in. x 8, 10, 12, 14 and 16 ft. |
| each, 18 in. x 6, 10, 12, 14 and 16 ft. |
| each, 18 in. x 6, 10, 12, 14 and 18 ft. Rod feed only, 18 in. x 18 in. x

SECOND-HAND.

Engine Lathe, 16 in. x 6 ft.
each, Engine Lathes, 18 in. x 6 and 8 ft.
Planer, 24 x 24 x 6 and 6 ft.

2 5 x 6 x 10 x 10 ft.

3 5 x 10 x 10 ft.

10 in x 50 in. x 17 ft.
10 in Bhaper.
2-Spindle Edging Machine.
Bolt Cutter, to take sizes to 154 inch. Merriman.
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Ali kinds Machinists' Tools and Supplies. NEW YORK AGENCY OF THE TANITE CJ., GRANT & BOGERT MACHINE TOOL WORKS, and for the NEW POLISHED SHAFTING.

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Traveling or Local Agents Hardware Dealers,

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Valuable Rolling Mill, with Tools and Machinery complete, ready to go to work. Located just out of Philadelphia, convenient to railroad, with unfailing water-power. Has three pairs of rolls, used chiefly for rolling brass and silver. It was stopped to settle up an estate, and at one time did a large business. Its facilities give it great advantages over others. Five dwellings, smelting shop, stable, &c., are included. There is another good site on the premises for any kind of manufacturing purposes requiring water-power.

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828 Chestnut St., Philadelphia WANTED.—Traveling Hardware men to sell my "Burton's Open Trucks" and one or two other specialties, on commission, in every State of the Union.

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Novelties to sell on commission to the Hardvare Trade in New England. "P. O. BOX 1761,"

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HENRY BROOKS & CO.,

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Several good, steady non-union men to run Nail Machines. POTTSTOWN IRON COMPANY,

WIRE ROPE. FOR SALE.-At a bargain, 500 feet 11/4 inch di

ameter, Best Cast Steel Wire Rope, seven strands. seven wires each. Practically as good as new For full par.iculars, address, UPSON, WALTON & CO.

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A Second-hand Hyd. Press, 10 or 12 in. ram Platens, 36 x 48.

FOR SALE.—One floor er & Boshert Iron Fran Press, 36 x 46 Platens. 10 Second-hand Hyd Pump and several Presses. WATSON & STILLMAN, 470B Grand St., N. Y.

WANTED.—A position in a Foundry (country or city), by French gentleman, 31 years, who has been Superintendent of a large Foundry at Paris during 7 years. Good and active work-man, who has a thorough practical knowledge of moulding: able to take entire charge. Inventor of new system for the rapid moulding of columns for building. The best references, LOUIS DECAEN, C. E., 146 East 19th Street, New York.

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Corliss Beam Condensing Engine, 30 in. x 72 in. Horizontal Corliss Engine, 14 in. x 30 in. New. Horizontal Corliss Engine, 12 in. x 20 in. New. Horizontal Corliss Engine, 12 in. x 20 in. New. Horizontal Engine, 13 in. x 26 in. New. Horizontal Engine, 13 in. x 26 in. New. Horizontal Engine, 25 in. x 16 in. New. Horizontal Engine, 25 in. x 26 in. New. Horizontal Engine, 26 in. x 16 in. New. Horizontal Engine, 8 in. x 12 in. x 12 in. Horizontal Engine, 8 in. x 12 in. Horizontal Engine, 8 in. x 12 in. x 12 in. Horizontal Engine, 8 in. x 12 in. x 12 in. X 12 in. Horizontal Engine, 8 in. X 12 in. Horizontal Engine, 8 in. X 12 in. Horizontal Engine, 8 in. X 12 in. Horizontal Engine Engine, 8 in. X 12 in. X 12 in. Horizontal Engine, 8 in. X 12 in. Horizontal Engine, 8 in. X 12 in.

Engines and Boilers.

CHEAP.

Needing the space which they occupy, will sell the following goods very low and on favorable

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725 H. P. Horizontal Stationary Engine. New.
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152 H. P. Vertical Stationary Engine. New.
153 H. P. Vertical Stationary Engine. New.
154 H. P. Vertical Stationary Engine. New.
155 H. P. 2 - hand.
165 Locomotive Boiler, 15 horse-power. 3d-hand.
167 Locomotive Boiler, 16 horse-power. Second-hand.
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168 Baragwanath Steam Heater. New.

J. M. BADGER, 49 DEV STREET, New York City.

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Correspondence solicited through their Cana dian house.

M. & L. SAMUEL, BENJAMIN & CO., Hardware, Metals, &c , Toronto, Ont.

\$200

Will buy a so-inch swing, to-foot bed, back-geared Engine Lathe; can be seen in use at our factory for a few days. We want the room for a new tool.

w tool.

THE STILES & PARKER PRESS CO.,
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A VALUABLE CANADIAN PATENT for Manufacturing Carwheel Tires will be sold to a Canada firm on easy terms. A saving of \$4.50 per ton on fuel, labor and steel.

Address JAMES A. FACER,
4325 Germantown Avenue, Philadelphia

The patentee hereby notifies all persons whom it may concern, not to use without my consent the same patent in the U. S. (No. 271,823) for the manufacture of carwheel tires. JAS. A. FACER.

Wanted.

One Large Second-hand Lathe, to swing nine (9) feet or more, twelve (13) feet between centers; also, one Second-hand Slotter, fifteen (15) or twenty (80) inch stroke. Give mak r's name, HIRAM KIMBALL, cash price. Address Room 11, Grand Arcade, Cleveland, O.

Agency Wanted.

Eastern manufactory, with organized force of traveling salesmen, is desirous of handling some staple article in connection with their present business. Address

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who thoroughly understands the manufacture of all grades of Sheet Iron. Those of executive ability and temperate habits only need apply to "SHEET IRON."

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To Machinery Manufacturers.

Having opened a depot for the sale of all kinds of Machinery and Supplies for Wood and Iron Work, I solicit correspondence with manufac-turers who desire to place their products in the market.
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Wanted.

Hardware Specialties for introduction to the trade and consumers. Address FRED. SCHMIEDING, \$30 N. 4th Street,

\$30 N. 4th Sa., \$35 Broadway, St. Louis, Me. WANTED,

A situation as practical Sheet Steel Roller, WILLIAM WILSON,
P. O. Box O, Middletown, N. Y. Office of The Iron Age, 220 S. 4th st., Philadelphia.

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New and Second-hand

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				-			
	Engine	Lathe, 20	ft, be	d, 42 1	n. sw	ing.	New.
One	11	18	45	36	99		44
One		18		30	44		64
One	45	16	44	30	64		+6
One		3.4	0.0	30			
One	84	12		30	0.0	Sec'd	
One	80	12	8.6	27	66	- 1	New.
One	+6	10	6.6	27			51
One	80	2.3	6-6	23	6.6		
One	8.6	10	16 .	93	+6		64
One	0.0	8	6.6	23	9.6		80
One	8.4	10	4.6	20	6.6		6.6
One	9.9	ko	4.6	10	0.0		+ 6
One	9.6	8	6.6	18	0.6		4.6
Four	6.6		6.8	16	4.6		6.8
Two	6.6	6	4.6	15	0.6		8-6
One	0.6	5	6.6	7.8	6.6		
One J One One One One One	11 11 11 11 11 11 11 11 11 11 11 11 11	ner, plan	7 4 33 9	long	26 X 22 X 36 X 36 X	30 h; 26 in, 22 in, 32 in, 36 in, 27 in,	
Une	9.6	66	8	6.6		30 in.	6.6
One	6.6	6.5	CO.	86		30 in,	6.6
Two	6.6	66	6	4.6		28 in.	64
Two	6.6	8.6		60		18 in.	0.6
	Jpr't Ba	ck geared	Self-	feed.		Drill.	New
One	0.0	6.9	91		26 in.	6.6	8.6
One	4.0	0.0	01		22 in.	- 66	0.0
Four One I	derrian	Upright D Bolt Cutt Machine	ter. (in. str	in. oke.	New.	h and
		6.5	8.5	4.6		4.4	
One		0.5	8	5.5		econd-	

THE GEO. PLACE MACHINERY CO., 121 Chambers St., New York.

To Brass Foundries. To Brass Manufacturers.

Our new foot press, for cutting off GATES from brass; astings by FOOT power, is now ready. Weight, so lbs. Price complete, \$5.0, net. A boy can operate teasily. We warrant them to give the most perfect teasily. We warrant them to give the most perfect vatinfaction. PEERLESS PURCH AND SHAR CO. 30 W. Dey Street. New York

Baker Blower No. 4½; Root do. Nos. ½, 2, 4 and 7; Sturtevant do. Nos. 6 and 7; do. Exhausters, Nos. 2, 3, 4, 5, 33 and 30; Baxter Engine. 4 H. P.; do., 10 H. P.; Vertical do., 2½ x 5; Horizontal do., 8 x 4 and 8 x 50; Pulley, 60 x 10½, chrap; Watson Portable Forge. Harris-Colliss Horizontal Condensing Double Engine: cylinders, 50 x 42 and 18 x 42; Hand Wheel, 16 feet x 39 inches, in fine order. Machinery purchased on commission. C. R. BIGELOW, M. E., 18 New (hurch Street, New York City,

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ONE LEAD PIPE PRESS, complete, with Melt-ing Kettle and all necessary attachments for making Lead Pipe. Also ONE SET of SHEET LEAD ROLLERS, Also ONE SET THE Crane, &c., and every-thing necessary for Rolling Sheet Lead. F. B. LAWRENCE. 36 Clark Street, Chicago, Ill.

For Sale or to Lease.

The Metal Refining Works of the late James Coleman, cor. Lorimer and Frost Streets, Brook-lyn, E. D., will be sold or leas-d upon reasonable terms. Apply to Rogers & Brownell, 480 Grand Street, or

T. M. McCANN, Prospect, cor. Pearl Street, Brooklyn, N. Y.

For Sale.

1 Horizontal Engine, 20 x 36, 125 H. P., complete with band wheel and cut-off governor. 1 Horizontal Engine, 16 x 35, 75 H. P., complete; I. P. Morris & Co. make. # 8 x 10 new Horizontal Engines complete. M. F ACKLEY,

1416 Washington Ave., Philadelphia, Pa.

For Sale.

A Manufacturing Business in Connecticut. One of the oldest houses in the country in its line, will sell its Stock, Machinery, Tools and Good Will at a moderate price, or will retain an interest in the business. The article is a staple one, of Iron or Steel, and always in demand. An excellent opportunity to take an established trade.

Address.

Office of The Iron Age, \$3 Reade st., New York.

Wanted.

HEAVY CASTINGS AND ROLLS.

1240 and 1242 North 9th street, Philadelphia

Wanted to buy Old Heavy Castings and Rolls of all kinds. Address MATTHEW GILL, JR., & CO.,

Hardware.

For sale—A good stock of Hardware in Grand Forks, D. T., amounting to about \$15,000; ill health the cause of selling. Address B. & W. H. PRINGLE

Grand Forks, D. T.

Wanted.

FNo. '1 wrought scrap iron, old iron and stee rails, wrought-iron turnings, cast-iron borings and burnt iron. Name quantity, lowest price and point of delivery.

JOS. J. LIPPINCOTT & CO.,

> Philadelphia, Pa. Wanted.

131 South Fourth Street.

To correspond with commercial men who visit the retail Hardware trade throughout the United

Address "P. O. BOX 1591," Horneilsville, N. Y.

WANTED.

By a well known and established Iron bouse, an agency for furnaces, rolling mill and coke. Have good facilities for handling same. The very best reference given. Address

For Sale.

If the list does not contain what you ant, write us,

J. M. BADGER,

40 DEY STREET, New York City.

The Industrial Works of Shamokin, owned and successfully carried on for a number of years by the late Wm. Brown. deceased, consisting of Foundry and Machine Shop, and a large steek of Patterns regarded as part of the property. Boiler Shop, Blacksmith Shop and Factory for the manufacture of heavy coal screens. Well located in the borough of Shamokin, Pa., with the best facilities for shipping by rail, and surrounded by a district contributing all the work that a shop of that kind for shipping of the work that a shop of that kind contributing all the work that a shop of that kind can possibly turn out. Easy terms of payment are offered to suit a purchaser of limited capital For list of Tools and further particulars apply to WM. McILVAIN & MONS.

Manufacturers of Boiler Plate and Tank Iron, Reading, Pa

For Sale.

CAST IRON HOT-BLAST PIPES-THOMAS PATENT.

38 Hot-Blast Oven Pipes for Thomas Oven, in first-class order. Price, z cent per ils., cash, at our works. Size, z jft. x g inches. A bargain. SHOENBERGEH, SPEER & CO., Pittsburgh, Pa.

For Sale.

One Root's Blower, No. 2. In perfect condition, but too small for the work

WILCOX, CRITTENDEN & CO.,

FOR SALE.

To Furnace Manufacturers, Patent Exhibitors and others.
Arrangements can be made to work Sutcliffe's Self Feeding Super-Heated Air Furnace. Patented in United States and a proved success in England. good royalties being obtained. The Patent Rights will be sold or shared with any respectable firm who will introduce it into the American market. Address
Office of The Iron Age, 83 Reade st., New York.

Business For Sale.

At a bargain, good Hardware business in best town in Southwest Stock about \$15,000, in good order. Sales, wholesale and retail, have run \$85,000 per annum. Owner non-resident.
Address "HARDWARE—103," 716 N. ad Street, St. Louis, Mo.

WANTED.

A position as Salesman by a young man thoroughly posted in the Hardware business, both wholesale and retail, or would travel Good references unlished. Address "RoB.,"

Office of The Iron Age, 83 Reade 84., New York.

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Special Notices.

GREAT BARGAINS IN New First-Class Machine Tools ENGINES AND BOILERS. Sold on 30 days' trial to responsible parties if desired.

Engine Lathes, 16 in. swing, 6 and 8 ft. bed. Engine Lathes, 18 in. swing, 8 and 10 ft. bed Engine Lathes, 26 in. swing, 12½ ft. bed. For prices, cuts and descriptions, apply to JOSEPH B. REED, Cairo, Ill.

For Sale.

ENGINES AND BOILERS.

One Corliss Beam Engine, Condensing, 500 H. P. One Adjustable Cut-off Steam Engine, 18 x 48, in first-class condition.

One Wright Automatic Cut-off Engine, 22 x 42.

One Dexter Automatic Cut-off Engine, 10 x 15. 40 H. P. One Dexter Automatic Cut off Engine, 12 x 12, 60 H. P. One Vertical Engine 6 H. P. One & J. P. Horizontal Tubular Boller.

One 50 " Vertical Botler. All the above guaranteed in good working

condition NEWELL UNIVERSAL MILL CO., 10 Barclay Street, New York.

STEAM PUMPS For Sale.

A large number of Steam Pumps of all makes, and ranging in size from small tank or boiler feeds up to very heavy service machines.
While the stock lasts good bargains are open for Miners, Water Works, Rolling Mills, Furnaces, or any one needing to move fluids by steam.
Call upon or address
JNO. A. HINCKLEY,
Purchasing Agent of the United Pipe Lines,
Oil City, Pa.

For Sale.

The largest stock of New and Second-hand Engines, Bollers, and general Machinery in the West. Send for Catalogue. Hoisting Outfits for Coal Mining and other purposes a specialty.

WARREN SPRINGER. 195 to 219 South Canal St., Chicago.

FOR SALE.

Whole or part interest in Hardware, Stove and Tinware store for sale. Sales from \$40,000 to \$50,000. In one of the most prosperous villages in Southern New York The best of reasons for sell-Office of The Iron Age. 83 ReadeSt., New York

For Sale.

500 tons Mixed Steel. oo tons Buggy and Wagon Springs.
Volutes, spirals, fool Steel and full line of Scrap Iron, Metals, &c.

A. LIEBERMAN, 1501 to 1507 State St., Chicago, Ill.

For Sale.

Second-hand

DROPS and LIFTERS BEECHER & PECK,

Lock Box 122, New Haven, Conn.

For Sale.

MACHINES For Making Picks, Mattocks, Axes, Solid Steel Hammers and Sledges,

with Adse Eyes or Solid-Punched Eyes. T. & CO., Box 25, Office of The Iron Age, 83 Reade St., New York,

Wanted.

An interest in some good Hardware Store by young man with capital, who has had 15 years experience in Jobbing and Retail. A No. 1 ref. erences. Communications private JOS. H. HARGISS. Address 65 Wood St., Pittsburgh, Pa.

MANUFACTURERS CATALOGUES

Respectfully Solicited by MORRISON & PACKWOOD,

DEALERS D

Agr'l Implements, Hardware, &c.,

TAMPA, PLORIDA.

To Manufacturers.

The undersigned has just patented a machine for breaking down Bituminous Coal in the mine instead of blasting to which he desires to call the attention of manufacturers of iron specialities. Territory, with exclusive right to manufacture and seil the same, can be had by addressing THUMAS A. MAYS.

Philipsburg, Centre Co., Pa. Send for Illustrated Circular, free.

Manufacturers, Take Notice!

I am traveling through Canada, from Wanitoba to Quebec, calling regularly four times a year on all the best trade, wholesale and retail, in Hardware, Cutlery, Lamp goods. Alre dy represent several large American concerns, and desire to add a few more lines on commission. Correspondence solicited in confidence. Only first hands dealt with, and no conflicting lines handled.

Address

Box 58, 8t. Thomas, Ont., Canada.

TO FOUNDRY PROPRIETORS.—The advertiser has a thorough practical knowledge of both the Gray and Malleable from Foundry business; at present foreman of foundry employing so moiders on bench and light floor work, but he desires to make a change. Age, 35. The best of reference as to character and ability. Please address. "GRAY AND MALLEABLE," Office of The Iron Age, 43 Roade St., New York.

WILL OFFER below market rates the following:

NAILS. LOCKS, SCREWS. AND STRAP AND T HINGES.

A. W. WHEELER,

141 Lake Street, Chicago, Ill. WANTED.—A situation as Hammer-man; can make all kinds of shapework, either from or Steel, under steam hammers ranging from one to five tons. Address "P. O. BOX 66,2" Etna, Pa.

Special Notices.

	One 20 In. C	rl. by	42 In.	Str k	e Corliss	Engine.	
	One 12-in. "		42-in.	0.0		+4	
	One 8-in.	1 66	20-in.	fo	4	6.0	
	One 1616-in.		20-in.	0.6	Upright	Engine	
	One 12 in. "	10	12-fn.	6.6	6	01	
	O e 8-in.		10-ln.	+4	60	9.0	Ride
	Two 536-in. "	0.0	7- D.	0.6	+4	01 [6	out off
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	One 6-in. "		to in.	44	- Heritoria		
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	One to HP.	Ports		ngine	and Boile	on W	hoole
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	One Large H	yorat	me Pi	ress, re	oin. Kam.		
1	One No. 3 Sec	ond-1	DURK	ROOF	Biower.		
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HENRY I. SNELL,

135 N. Third Street, Philadelphia

and contracts taken for power shears, power punches, steam hammers, steam riveters, boiler plate planers, and heavy punches made at reasonable figures. Work guaranteed.

Estimates Furnished

B. GRAVES LOUDEN. 22d St. and Washington Ave., Philadelphia.

For Sale.

TWO SUGAR PACKERS. ONE MIXER. ONE VACUUM PUMP All in good condition Address

GEORGE B. GRAHAM, P. O. Box 689, Baltimore, Md.

Hardware-Rare Opportunity.

The Hardware Store and Fixtures of W. Rutter & Son, in the City of Wilkesbarre, Pa., is now offered for sale. Location, best in city.

The Store has been lately improved in every particular. Stock in good order. Good reasons given for discontinuing business.

E. BISSELL & CO.,

Wholesale Hardware Auctioneers. 83 Chambers and 65 Reade Sts., N. Y.

Sales held weekly for the trade. Consignments blicited. We refer to the leading manufacturers and importers.

WANTED, A SITUATION.

An Eastern American Iron Molder, foreman of a foundry in Pennsylvania, desires the foreman ship of another foundry. Satisfactory reasons given; will refer to manager of company for whom he is foreman; also give first-class Eastern refer-ences if desired. Thirteen years on light and heavy work, part of time foreman. Address 'FOUNDRY FOREMAN-26' Office of The Iron Age, 83 Reade st., New York.

Wanted-Partner,

IN THE GENERAL MACHINERY BUSINESS To a man with capital a fine opportunity is offered in a house doing a good business and of established reputation. For particulars, address

"MACHINERY," Office of The Iron Age, 83 Reade st., New York.

Wanted.

A man capable of superintending construction of Portable and Stationary Engines and Boilers. Must be a good draftaman and capable of estimating on work: thoroughly competent and of sober habits. To such a man will give a permanent situation.

Address, giving references.
"SUPERINTENDENT,"
Office of The Iron Age, 83 Reade St., New York.

A N EXCULLENT OPPORTUNITY for a party with something to manufacture, either in iron or wood, in connection with a foundry established 20 years. Runs by steam; first-class facilities for shipping, securing iron, coal or lumber. Object, to extend business. For particulars as to shop room, power & Address

T. F. STIMPSON,

Hancock, Delaware County, N. Y.

Hardware.

An excellent opportunity to engage in the whole-sale trade for one who can command \$25,000, or would like to join hands with a good live concern in the South or Northwest, and put in as capital the stock, which is in excellent condition and well assorted. Address "C. W. C.,"

Office of *The Iron Age*, 36 and 38 Clark St., Chicago, Ill

AN ENGLISHMAN,

Recently arrived, desires employment of any kind. Satisfactory references. Well acquainted with the Hardware business. Address

GEORGE JAMES, Office of The Iron Age, \$3 Reade St., New York,

CHAS. O. LE COUNT. 29 Chambers St., New York, PURCHASER OF HARDWARE

CORRESPONDENCE SOLICITED. Refers by permission to

Messrs. SARGENT & CO., New York. WIEBUSH & HILGER HARDWARE CO., New York. Messrs. J. S. BROWN & CO., Galveston. Texas.

Metal Exchange Memberships

Bought and Sold by
WM. WILLIS MERRILL,
4 Stone Street, Room 69. Dealer in EXCHANGE MEMBERSHIPS.

Hydraulic Presses

FROM 50 TO 2000 TONS PRESSURE. Special Hydraulic Machinery Constructed. B. GRAVES LOUDEN,

Twenty-second st. and Washington ave...

Philadelphia.

Trade Report.

BRITISH IRON AND METAL MARKETS.

[Special Cable Dispatch to The Iron Age.]

LONDON, WEDNESDAY, March 26, 1884. Scotch Pig.-The market is quiet, and prices are steady. We quote makers' brands as follows : Summeriee, Carnbroe, Glengarnock, "Ardrossan Eglinton, "Dalmellington, "at Leith.

Cleveland Pig-Is a little steadier. We quote as follows, f.o.b. shipping ports:

Lighterage from Ardrossan to Glasgow is 1/3

Bessemer Pig-Quiet and unchanged. W. C. Hematites are quoted 47/6 @ 48/ for mixed lots, Nos. 1, 2 and 3, equal parts, f.o.b. shipping ports.

Manufactured Iron-Continues irregu-

	£	8.		. L			d
Staff. Ord. Marked Bars	8	10	0	@			
" Medium "	6	5	0	a	6	15	-
" Common "	6			0	6	5	
Hoops, 20 W. G. and over.				400			
" Common Best	7	0	0	0	7	.5	1
" Medium	6	.5	0	0		15	1
16 Common	6	10		a			
Sheets, 20 W. G. and under.		-		400			
" Ordinary Best	8	15	0	0	9	.5	(
" Common	8	0		a	8	. 5	-
Welsh Bars	5	2		0	5	5	-

Steel Rails—Are steady. We quote Ordinary Sections, £4. 17/6, f.o.b. shipping

Old Rails.-The market is steady. We quote Old D. H.'s, £3. 10/@ £3. 12/6, c.i.f. New York.

Scrap.-The market is unchanged. We quote Heavy Wrought, £2. 15/@ £2. 17/6, c.i.f. New York; Bessemer Crop Ends, run of the mill, are quoted 50/@ 52/, f.o.b. shipping ports.

Copper-Is not so steady. Best Selected is quoted £61 @ £62, and Chili Bars, £54 @ £54. 10/.

Tin .- The market is a little steadier. Straits Ingots, spot, are quoted £84. 5/@ £85; and futures, £85 @ £85. 10/.

Tin Plates-Are a little steadier. We quote :

Tin Plates, 10 x 14, 1st qual. Charcoal ... 19/6 @ 21/6 18/8 @ 19/
... ... 1st Coke 17/6 @ 18/
... ... 2d 14/6 @ 18/ Spelter.-The market is a little firmer. We quote Ordinary, at shipping ports, £14.

10/ @ £14. 12/6. Lead-Is weaker. We quote Common English Pig, £11. 5/@ £11. 15/.

Freights .- Steam from Glasgow to New York, 6/@ 6/6; Liverpool to New York, 5/ Liverpool to Philadelphia, 5/ @ 6/6, and London to New York, 7/6 @ 9/6.

TRADE AND FINANCE.

Office of The Iron Age, WEDNESDAY EVENING, March 26, 1984.

Repeated cutting of rates on east-bound freight from Chicago, and a sharp break in the prices of grain, are the salient features of the week. Provisions have also sympathized with the downward movement. It is a noticeable fact that, notwithstanding this material betterment of the situation as respects the export trade, the outward movement is almost as sluggish as before. Europe her chance; the price is low by comparison with former figures current at this season; cut-rate basis, and holders at large are in the selling mood. And yet there is complaint of day a fall in New York Central was aided an absence of export orders. The course of by the statement, subsequently denied, that the grain market may be inferred from the a \$20,000,000 5 % loan had been decided fact that Monday's decline in wheat was upon for the purpose of paying for terminal 11/4, compared with Saturday's closing, improvements. The decline in Erie is bewhich was 16 lower than the previous day, touching the lowest point thus far; and prospects continue unchanged. The speculative markets were further disturbed by another plunge in coffee, which went off about 56¢ per pound, with no actual bases for quotations. Although the east-bound grain freights have been reduced by Commissioner Fink's order to 15¢ \$2 100 fb, it is rumored that contracts are being surreptitiously made at 12 1/2 € 100-a rate which is little, if any, above the actual cost of the service.

In general trade there is rather more animation, a few sunny days having had a cheering effect. Dry goods jobbers report a fair inquiry, considering the previous unfavorable conditions. As yet, however, there are no radical changes. The Clearing House returns from 27 principal cities indicate a slight improvement, but more notably at Louisville, Pittsburgh, Memphis and New Orleans. Delay in the opening of the spring trade is a common complaint. Navigation on the Hudson River, now resumed, will quicken the start. On the Lakes at last accounts the harbors were effectually blocked, but the prospects of a prosperous trade were the posted rates for bankers' sterling reconsidered encouraging. The business failures of the last week number 213, as against day's gold shipments were about \$1,200,000 quotation is discount 30 and 5 and 3 per cent.

216 the week before. Failures are exceptionally few in the Western and Pacific not improve additional amounts will follow. low as the goods ought to be bought.

States and in New York city, and there is some decrease in Canada.

The weekly bank statement showed an increase in specie of \$1,676,400, due to Treasury payments on account of called bonds All the other items showed a decrease, the contraction of loans being unusually large. The banks gained \$1,934,300 in surplus reserve, and now hold \$8,590, 125 in excess of the 25 % legal requirements. Despite the recent gold exports. the banks have \$19,425,900 more specie than at this time last year, making a net gain in cash of \$30,991,500, as compared with 1883, including \$11,500,000 in legal tenders. Confidence is now felt that money will continue easy for months to come, as little change is perceptible in anticipation of the April settlements. The issue of silver certificates, in addition to gold accumulations, sufficiently explains the remarkable condition of ease in respect to loans. The practical working of the silver-coinage law also appears in the fact that; while the Treasury lost \$2,000,000 in gold within the last three weeks, it gained about \$2,500,000

in silver. The imports of general merchandise at this port during the past week, as officially reported by the Custom House, were among the heaviest on record, the total being \$12, 583,543. The receipts of dry goods, amount ing to \$2.502.876, were fair for the season. The receipts included 278,701 packages of sugar, valued at \$2,229,634; coffee valued at \$1,288,805, india-rubber and tin also coming in quite freely. Since January 1 the total imports amount to \$106,824,132, compared with \$110,903,344 for the corresponding period of 1883.

The exports of domestic produce from this port during the past week were again light, the total being but \$5,202,396, against \$7,349,022 for the same week last year. Since January 1, the exports aggregate \$70,200,934, compared with \$86,074,607 for the corresponding period of 1883.

The imports of specie, according to the The Buckeye Brass Box Attachment, fitted \$32,000, while the exports of specie were about \$1,500,000, making a total since January 1 of \$14,685,029. The exports of breadstuffs from all the Atlantic ports for the week show an increase equal in value to \$300,000, but this is more than counterbalanced by the falling off in cotton exports, equal to \$650,000. Compared with last year the difference becomes more strikingly un-favorable, the decreased value in those two 14 in.\$17.00 | 16 in.\$19.00 | 18 in.\$21.00 | 20 in.\$23.00 the difference becomes more strikingly unitems alone being nearly \$6,500,000 for the week just expired. Since September 1 the decrease in the value of cotton exported is \$1,500,000, compared with corresponding dates last year.

The various refunding and other bills intended to relieve the National Banks from has the following prices: threatened contractions, as a result of a continued calling of bonds, make little headway in the House Committee. The further consideration of the Aldrich bill was postponed two weeks. The bill to reduce fees of New York pilots 25 % was passed in the Senate, and, some amendments being concurred in by the Assembly, it goes, now to the Gov-

ernor. A proposed meeting of trunk-line presidents next Friday absorbs much interest on Change.

The new Produce Exchange will be opened for business May 6, and the new Real Estate Exchange, at Nos. 59-63 Liberty street, next fall. A movement is on foot for the consolidation of the New York Petroleum Exchange and the Electric, Manufacturing and Miscellaneous Stock Exchange.

On the Stock Exchange the week has been dull, with prices drooping. The several reis reminded that if she really wants any ductions in rates of freight by the Pool Comwheat from this country this year, now is missioners were construed as evidence of weakness, and in consequence trunk-line stocks were more freely offered, but the deocean freight room is available at about what cline was not serious. Prices in several it costs to handle grain for ballast; through instances were sustained by leading operatare down to a ors, but a disposition to realize is an impedi- 12 lieved to be due to speculative manipulation and to sales for London account.

On Monday trading was weak, and to-day the market was feverish and irregular. An attempt by the pool in Pacific Mail to market some of its stock caused a break from 52 to 51. The list as a whole was slightly in advance of the leading stocks, closing as follows: Northern Pacific, 221/4; Oregon and Transcontinental, 213/4; Northern Pacific preferred, 481/2; Union Pacific, 761/4; St. Paul, 88; Erie, 22%, and Lake Shore, 101%.

An order from Commissioner Fink, taking effect to-day, reduces the rate on base bullion and pig lead, East bound from Chicago, from 30 to 20 cents The closing prices for United States bonds were as follows :

S. 41/4s, 1891, registered...
S. 43/4s, 1891, coupon...
S. 4s, 1907, registered...
S. 4s, 1907, coupon...
S. 3 per cents...
S. Currency 6s, 1896...
S. Currency 6s, 1896...
S. Currency 6s, 1899...
S. Currency 6s, 1899... State bonds were dull. South Carolina 6s,

main unchanged at \$4.88 @ \$4.90 1/2.

GENERAL HARDWAREJ

The trade in Hardware continues without special features, the demand being fair, with promise of an increase in April. Prices remain without material alteration. Orders carefully assorted indicate purchases for immediate requirements. Spring goods are moving more freely and, for the most part, at well-sustained prices.

LAWN MOWERS

For the description of the different Lawn Mowers on the market we refer the trade to the illustrated article in another part of this issue, furnishing in these columns information with reference to the prices at which the different machines are sold. For convenience we give first the lists of the several manufacturers, and then at the close the discounts which are given the trade:

The Pennsylvania Lawn Mower. Lloyd & Supplee Hardware Company, 625 Market street, Philadelphia. Durrie & McCarty, agents, 97 Chambers street, New York.

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16	0.0							,							,				87		0.0				. ,													,	1	7.0

Mast, Foos & Co., of Springfield, Ohio, sell their Buckeye Mowers, "Senior" and 'Junior," from the following list:

The Buckeye "Junior" Lawn Mower.

Weight. . 30 lbs. . 32 34 ... Price. .\$11.00 .. 13.00 .. 15.00 The Buckeye " Senior " Lawn Moveer. Weight. 30 lbs. 82 ". 34 ". 86 "

Custom House statement, amounted to only to either "Senior" or "Junior." \$2.50 each. The Philadelphia Lawn Mowers, made by Graham, Emlen & Passmore, 631 Market street, Philadelphia, Pa., are sold as follows:

City Lawn Mowers. 10 inch. ..\$11.00 | 12 inch. ..\$13.00 | 14 inch. ..\$15.00 Philadelphia Lawn Mowers.

Style D. 10 inch...\$13.00 | 12 inch...\$15.00 | 14 inch...\$17.00

Style H, High Speed. | 14 inch ... \$17.00 | 16 inch ... \$19.00 | 18 inch ... \$21.00 |
| Attachment for collecting the cut grass ... 10.00 |
| Old style 15 inch ... | 19.00 |
| Philadelphia Grass Edger ... 7.00 |

The Continental Lawn Mower, sold in this city by W. Dodman, 107 Chambers street,

The Continental. . 10 12 14 16 18 .\$18.00 \$15.00 \$17.00 \$19.00 \$21.00 Extra Machines for High Grass. 15 inch...\$20.00 | 17 inch...\$22.00 | 19 inch...\$25.00

The following is the list of the different Mowers made by the Chadborn & Coldwell Manufacturing Company, of Newburg, N.Y., for whom T. P. Burke, 100 Chamber street, is agent :

Excelsior Side Wheel, ...\$11.00 | 16-inch cut ... 15.00 | 18 ' ' ' ... 17.00 | 20 ' ' ' ... Excelsior Roller. .\$13.00 | 16.inch cut . 15.00 | 18 " " . 17.00 | 20 " " 819,00 21.00 23.00 10-inch cut New Clipper. 12-inch cut, \$13. 14-inch cut, \$15. 16-inch cut, \$17

Coldwell's Lawn Mover Guard,
Guard for 10-inch. .81.20 Guard for 16-inch. .81.70
12 1.39 Guard for 16-inch. .81.70
14 1.59 30 32 00 32.10 Carr & Hobson, 46 Cliff street, New York, manufacturers of the Knickerbocker and National, sell them from the following lists:

10-inch...\$18.00 | 12-inch...\$15.00 | 14-inch...\$17.00 .. \$13.00 | 14-inch 15.00 | 16 "

The following are the list prices of the Easy" Lawn Mower, made by the Blair & Fiske Manufacturing Company, of Springfield, Mass. : 10-inch cut...

" Geared at both ends." Made to order......

The Hills Archimedian Lawn Mower Company, Hartford, Conn., Graham & Haines, agents, 113 Chambers street, New York, have the following lists:

Charter Oak. ...\$11.00 | 15-lneh\$18.0013.00 | 1821.00 Daisy. (For net figures see below)

Passing now to the matter of discounts on above lists, in which it will be observed that there is a general agreement, we would first remind the trade that the following manufacturers are in combination as to prices, and may accordingly be quoted together: Chadborn & Coldwell Manufacturing Company Mast, Foos & Co.; Lloyd & Supplee Hardware Company; Graham, Emlen & Pass-more, and the Continental Lawn Mower Company. The nominal outside rate is discount 30 per cent. from above lists, but very To- few Mowers are sold at that figure. A fair

Carr & Hebson, Blair & Fiske Manufacturing Company and Hills' Archimedian Lawn Mower Company are not in the combination, and yet by these manufacturers the above rates are more or less closely adhered to. The Blair & Fiske Manufacturing Company quote discount 30 and 5 per cent. for small lots, but may be supposed at least to meet the prices of the combination makers. Graham & Haines, the agents for the Daisy, quote it regularly at the following net

12 inches. \$8.50 | 18 inches.... Carr & Hobson hold their Mowers at about combination rates, and are introducing them energetically through agents whom they appoint in the various cities, to whom, we understand, they give the control of their machines within a certain territory.

NAILS. A fair business is in progress, but it is largely confined to the representatives of the factories now in operation. The agents of factories closed by strikes contend with more or less embarrassment in keeping up stocks, and often have an indifferent assortment of various brands with which to supply their customers. Some sizes are running quite low, as is evinced by the efforts among dealers to exchange Nails with one another. Still there seems to be a sufficient quantity of Nails available to meet the demand, though it is somewhat remarkable that Nails are not very scarce in view of the long stoppage by the New England factories and the almost total suspension of supplies from that quarter during the entire time. News from the Eastern strike indicates the approach of the end. At several factories the hands have yielded, and have gone to work at the reduction. At others an irregular force of hands has been employed, consisting of machinists and boys, which is, it is understood, fast becoming efficient. At some factories Canadian workmen have made their appearance, but the strikers have interfered with them, and in several instances have prevented them from getting to work. At Fall River a few men are employed in cutting fine three-pennies, with the understanding that the old wages will be paid; but they are only engaged temporarily. The Pottstown Iron Company report that one of their Nail factories has been in oper ation for several weeks, and the other one now running nearly full. We continue quote prices on the basis of \$2.50 for larg lots, and \$2.60 @ \$2.65 for small lots. It stated that higher prices have been aske and obtained in some cases during the pas week. The export demand is quiet a present.

By a special dispatch from Pittsburgh w learn that, at the meeting of the Nail Associ ation to-day, all sections of the West wer represented, and that, after a thorough dis cussion of the situation, the \$2.60 card wa reaffirmed. Nails, however, our advice adds, can be bought 10 cents below the card The next meeting of the Association will be held on the 9th of April. It is whispered confidentially through Pittsburgh that ar effort will be made to strengthen the Associ tion and give it a greater control of produc tion and prices than it has heretofore had. BARD WIRE.

The expectations of improving trade are being realized, and orders are more plentiful. The jobbers have awakened to the up ward tendency in prices, it is reported, and are purchasing carload lots quite freely though the companies represented here as sert that they are not now in a position to promise early deliveries, some having their capacity engaged up to the middle of April and others far into the month of May Urgent inquiries are coming in from West ern purchasers as to the time when their goods will be shipped. No change in price has been announced; but if the demand continues to increase at its present rate of progress, and the price of plain Wire is ad vanced, another upward move in Barb Wire will be inevitable. Four Point Galvanized Barb Wire is quoted at six cents per pound in less than carload lots at New York.

The following statement, which emanates from a St. Louis source, may be of interest to our readers :

The National Barb Fence Company was incorporated under the laws of the State of Illinois, on December 27, 1883, with a capital of \$2,000,000. The officers of the com pany are Mr. A. B. Stone, president, and E. B. Marsh, secretary, both of Chicago. Two or three meetings of the company have already been held in Chicago, and the meeting of last week in this city was virtually another meeting of the company, as few were present who were not identified with it. The several meetings which have been held have had for their object the perfecting of the organization, which is as yet in a crude and unsatisfactory shape. But it is doubtful now whether the company will ever succeed in reconciling some of the unlicensed manufacturers who have heretofore attended its ment of at least two of our large local the withdrawal of these two concerns would be fatal to the existence of the be reconciled, the fact will be developed, and the pooling arrangement completed.

The object of the pool is to sustain remunerative prices, and at the same time to secure the raw material at reasonable figures by huying it in large quantities. And it may be further remarked, one object of the company is to secure a greater degree of

independence as regards the Washburn & Moen patents, though we do not understand that these patents are in any way to be com-promised by the formation of the pool; the assumption is that a large company can hardle patents to a greater advantage than a number of small ones. The unlicensed manufacturers will receive stock representing the value of their machinery and fixtures and the licensed manufacturers for their tonnage under the Washburn & Moen patents (which is 85,000 tons) at \$10 a ton, and also stock equaling the value of their machinery. Stock for which cash has been paid or representing machinery values will be preferred stock, and a dividend of 8 per cent. per annum will be paid thereon; other stocks will be common, and dividends will depend upon earnings. A Chicago party, we understand, has offered to float \$3,000,000 of the stock at 1 per cent., which it is proposed to increase to \$5,000,000, as \$2,000,000 is manifestly too small a capital for the com-

An association has been formed by the manufacturers of

HORSE NAILS, who have been in session in this city. The meetings were well attended, and most of the leading companies were represented. A permanent organization was effected, and there was a full interchange of views on the condition and prospects of trade.

There has of late been a very brisk

ROLLER SKATES.

and the manufacturers, as a rule, are very busy. The demand is active for goods for sale in this city, but orders from many parts of the country indicate a general activity in this line.

There is a firmer tone in the GLASS

market, and the discounts are somewhat less than last week. This is caused by a strike among the Belgian blowers, with which the American blowers are in sympathy, and which they are credited with instigating.

NEW LISTS AND PRICES.

Joseph Mallinson & Co., for whom the Alford & Berkele Company are special agents, 77 Chamber street, New York, have issued an illustrated and descriptive price list of their Shears and Scissors. It is as follows: subject to a discount of 25 per cent. :

Ladies' Steel Scissors.

at :	ADMINIOS CHOCK	OCTOO .	
r-			. Nickeled.
	No. Length. 0 5 inches	Per doz.	
is	0 5 inches	\$3.33	\$5,00
	1 536 "	3.50	5,25
to	2 6 "	3.67	5,50
ζe.	3 616 "		6.00
	Pocket Steel		
18	Locket greet		
d			. Nickeled.
	No. Length.	Per doz.	Per doz.
st	0 4 inches	\$3.33	\$5.00
at	1 436 44	8.50	5.25
ac	2 5 "		5.50
- 1	Barbers' Steel She	are (Linner	
	Durvers Steet Site		
0	N. 2	Japanned.	Nickeled.
-	No. Length.	Per dos.	Per doz.
	0 8 inches	\$5.89	\$8.00
0	1 836 "	5.67	8.50
-		. 6.00	9.00
- 1	8 936 "		10.00
IS	Straight Steel	Trimmers.	
100			Nickeled.
	No. Length.	Japanned.	Don don
1.		Per doz.	Per dog. \$6.00
18	1 6 inches		\$6.00
10		4.33	6.50
d l	U		7.00
- 1	4 450		7.50
n			8,00
1-	0 099	5.67	8.50
	1 9	6.33	9,50
2-	8 10 "		12.50
- 1	9 11 "		15.00
- 1	10 12 "	11.00	16.50
- 1	Bent Steel Tr	immere	
9	arens treet ar		
- 1	** *	Japanned.	Nickeled.
i-	No. Length.	Per doz.	Per doz.
	1 816 inches	\$6.67	\$10.00
-	2 9 "	7.38	11.00
d I	9 20	9,00	13.50
- 1	4 11 4	10,00	15.00
,	0 10		16.50
1-	Bankers' or Paper	Steel Shear	rs.
		Japanned.	Nickeled.
0	No. Length.	Japanned. Per doz.	Per doz.
r	1 9 inches	\$6.00	\$9,00
	2 10 "	8.88	12,50
4	8 11 "		18.50
		10.67	16.00
	4 12 " 5 18 "	12.00	18.00
-	6 14 "		21.00
r			
- 4	Converted Steel Shee		
8		Japanned.	Nickeled.
d l	No. Length.	Per doz.	Per doz.
	1 6 inches	\$8.80	\$4.90
	2 7 "	8.80	5.75
-	2 7 11	4.40	6.55
- 1	4 9 "	5,30	7.80
	5 10 "	6.80	10.95 [
3	Cast Shears-"	Victoria."	
	No. Length.		Per gross.
	1 6 inches		822.25
	9 7 11		
	8 8 "		31.50
	4 0 "		
t	Cast Shears-" He		
-			
1	Mo Longth	apanned.	Nickeled.
	No. Length. P	er gross.	Per gross.
1		\$8.83	\$22.25
1 1		9,25	27.00
13		11.10	81,50
14	1 9 "	13.90	34.25

The Fred J. Meyers Manufacturing Company, of Covington, Ky., issue a descriptive illustrated circular and price list of the Con- landt street, New York : meetings and been acting in accord with it.
The recent meeting here developed the fact
that some of the Chicago manufacturers
sprung a point or two which cannot receive the
ductor's Canceling Punches which they
manufacture. In this list we notice a new
article, their No. 3 New Improved Consprung a point or two which cannot receive the ductors' Canceling Punches which they ductor's Punch. This article, they claim, is the best low-priced Punch in the mar ket. It is made entirely of steel, and is company. A meeting of the company, however, will most probably be held this week—
if not, then on April 3—at Chicago, and if the differences of some of the companies can be different to the differences of some of the companies can be differed in this list are the following, the list prices being subject to a discount of 25 per

Pruners' Shears-Steel.

Dental Snips.

Tinners' Hand Shears.

\$9.17 11.00

with Screw..... Bolt and Nut

cent. :

The Ellrich Hardware Manufacturing Company, for whom the Alford & Berkele Company, 77 Chambers street, New York, are special agents, have issued a new list for the Patent Solid Socket Screw-Drivers, &c. which they manufacture. It also contains a new article, the Patent Lathe Chuck for woodwork. This is a new mechanical de vice for pattern-makers and woodworkers to which they call special attention. The list is as follows, subject to a discount of 25 Patent Socket Screw-Drivers-Ebonized Handles

	Bla	des.				Per doz.
1146	inch	long.	8-16 (nch	diamete	er\$2.00
2	6.6	0.6	0.6	6.6	6.6	2.50
3	6.6	6.6	34	6.0	6.6	2.75
4	6.6	6.6	0.5	6.5	6.6	8.00
5	6.6	6.6	5-16	6.6	4.6	8.50
6	6.0	6.6	6.6	6.6	+ 6	8.75
7	4 +	6.6	6.6	0.6	0.6	4.00
8	0.6	6.6	86	6.6	6.5	5.00
9	4.4	66	64	1.4	5.6	5.50
10	6.0	0.0	6.6	6.0	6.6	6.90
12	6.6	6.6	6.6	0.0	0.6	8.00
		Bec	ided (Coco	bolo Ho	indles.
	121	ades.				Per doz.
114	inch l		16 inc	h di	0.773	
278	66		66 66			2 75
9	46	66	L6 60		66	3 00
4	6.6	66	10 A1		44	8 25
		l trade	B.)			especially for gun
		Pate	ent So	cke	t Scrate	h Awls.
Wit	h ebo	ch and ny ha	maple ndles.	e ha	ndles	nches. Per gross. \$16 67 18 34 ed Cocobolo Han-
Pric	e, per	doze	n			
				t B	ull Ring	78.
236	66	66	66	64		
Dulo						# no 00

The Beaver Falls Cutlery Company, for whom also the Alford & Berkele Company are agents, have issued an illustrated catalogue of their Pocket Cutlery, with a list which has been thoroughly revised and materially reduced. It is subject to a discount of 25 per

There is a better feeling in Wire and prices are stiffer, with some expectation of an advance before long.

The Medina Manufacturing Company, Medina, N. Y., are the manufacturers of the "Ha Lilton" Barn-Door Hanger, illustrated in their advertisement on page 32. It is sold from the following list, which is subject to a discount of 50 per cent. : 4 inch, per pair.

Packed one dozen pairs in a box. The Buffalo Farming Tool Company, for whom Henry Brooks & Co., Boston, Mass., are sole agents, have made the following changes in their list of 1883: No. 12 Extra Heavy Street or Mortar Hose should be 10 x 61/2 inches, \$15. They announce, also, the following new-list prices: No. 25, \$17.50 No. 26, \$19; No. 27, \$17; No. 28, \$18.50 No. 29, \$13.50; No. 30, \$15; No. 33, \$20.50; No. 34, \$22; No. 37, \$23.50; No. 38, \$25 No. 47, \$7. They have discontinued the manufacture of heavy road Rakes, and to their Spading Forks add No.28½, Ladies' Spading Forks, Mal-D List, \$12.

The following are the revised list prices

CLOTHES WRINGERS

made by the Bailey Wringing Machine Company, Woonsocket, R. I., whose agency in this city is 99 Chambers street :

Novelty Wringers, with Curved Clamp

Name and Number	Length. Inches.	Diameter. Inches.	Price per
No. 2, Small Family Size. No. 3, Medium Family Size. No. 4, Large Family Size. No. 22, Large Family Size. No. 38, Ex. Large Family Size. No. 48, Tamil Hotel Size.	10 11 18 10 11 12	194 194 194 9 9	\$33.00 37,50 42.00 42.00 51.00 60.00
Novelty Wringers, with Strain No. 246, Small Family Size. No. 349, Medium Family Size. No. 449, Large Family Size. No. 2246, Large Family Size. No. 3346, Ex. Large Family Size. No. 4446, Small Hotel Size.	10 11 12 10 11 12	134 134 134 2 2 2	83.00 87.50 42.00 42.00 51.00 60.00
Excelsior Wringers, with Fold No. A, Small Family Size No. B, Medium Family Size No. C, Large Family Size No. AA, Large Family Size No. BB, Ex. Large Family Size No. CC, Small Hotel Size	10	194 194 194 194 2 2 2	A. 51.00 55.50 60.00 60.00 69.00 78.00
Excelsior Wringers. No. E, Small Family Size No. F, Medium Family Size No. GL Large Family Size No. EE, Large Family Size No. FF Ex. Large Family Size No. GG. Small Hotel Size	12 10 11 12	194 194 194 2 2 2	49.00 46.50 51.00 51.00 60.00 69.00
Excelsior Wringers—Laundry a No. H. Medium Hotel Size No. HH, Large Hotel Size No. JJ, Laundry or Factory No. KK, Laundry or Factory No. 00, Laundry or Factory No. 000, Laundry or Factory	12 14 16 18 14 18	214 1 214 1 3 3 414 4	ry. 105.00 132.00 167.00 157.00 147.00 193.00

veil as thicker rolls. The following is the price list of the Metropolitan Manufacturing Company, 32 Cort-

Universal .- Family Sizes, with Rowell's Double Cog-Wheels on both ends.

	Size of	Size of Rolls.		
Numbers.		Diam. Inches.	Per do	
216	10	184	\$18.0	
0		186	84.5	
114	11	184	87.5	
136	11	172	42.0	
1		2	60.0	
Universal, for Stationa			e Wate	
Either Way	J. New St	yles.)		
Size.				
A 216	10	134	42.0	
B 11/2	10	134	50.0	
C 1		2	69.0	
National, with Me	alleable Ire	on Fran	ie.	
Number.	, 1			
914	10	134	88.0	
112		13%	42.0	

Universal.—Large Sizes, with Steel Springs and Metal Boxes, for hand or power.

		Size	of Rolls.	Price	
Num	bers.	Leng	th Diam. s. Inches.	Per do	
8		14	21/4 81/4 21/4 31/4	Each. 10.78 20.00 22.50 30.00	
Sherman		rame.	For Hote	ls and	
4		12	2 2	7.00 9.00	
	Vash Benc dapted to	hold any	Tub Wrin	Perdos	
Galvanized. Japanned			134 134	15.00 12.00 Price	
UnionUsu	el Size al Size			12.00	
Mang	les for Iro		hout Hear		
	No.	Length.	f Rolls.	Price each.	
60	B steam. 2 hand 8 hand	33 in. 2616 in. 23 in.	6 in. 6 in. 5¼ in.	\$98.75 56.25 87.50	
Putnam's 1 Improved.	hand	23 in.	3¼ in.	7.50	

Other manufacturers of Wringers retain former lists. In this line there is a fair demand, but prices are uncertain and profits

BUSINESS ITEMS

The Sanford Fork and Tool Company, of Cortland, N. Y., have appointed T. Burke, 100 Chambers street, New York, their direct representative. These manufacturers are known to the trade as the makers of their specialty, the Sanford Fork, the prices of which are given in their catalogue in net figures. They also make a line of other Forks, which are sold from the regular combination list.

The Meech & Hart Company, of Unionville, Conn., manufacturers of Iron Handle and Solid Steel Knives and Forks, Butter Knives, Nut Picks, Nut Cracks, &c., have just added to their works a Silver-Plating Department, and will hereafter plate a portion of their productions.

The E. M. Boynton Saw and File Company

are moving their New York office from 80 Beekman street, where they have been so long located, to 88 Chambers street, which will be their future headquarters.

NEW CATALOGUES.

The William H. Haskell Company, Pawtucket, R. I., have issued a new illustrated catalogue and price list of the goods they make. This book, which is finely printed and very conveniently arranged, shows that these parties manufacture Gimlet-Pointed Coach Screws, Machine Bolts with Round. Square and Hexagon Heads, Plow and Cultivator Bolts, Tap Bolts, Milled Cap Screws and Set Screws, Clinch Rings, Cold-Punched Square and Hexagon Nuts, Clearer Springs, Chain Links, Levers and Stirrups, Rods, Bolts and Iron Work for buildings. They give illustrations showing the exact size and shape of the different kinds of Clearer Springs, Levers and Stirrups which they have tools for punching and can furnish promptly. They mention that they are conwith their former one that it indicates a substantial increase in their business and contains some new articles, such as Clinch Rings and Chain Links, which are not included in their former catalogu ?.

The Norwalk Lock Company, of South Norwalk, Conn., and 82 Chambers street, New York, have issued a new illustrated descriptive catalogue of the Door Locks, Knobs and Builders' Hardware of which they are the manufacturers. This noble volume of nearly 500 pages exhibits very satisfactorily the extensive variety of goods in this branch of manufacture. It is accompanied by a supplement, giving the revised list prices on the whole line of goods.

from the E. Stebbins Manufacturing Company, Brass Founders and Finishers, of and satisfactory exhibit of the line of goods of which these parties are the manufacturers. It is divided into the following departments: Stebbins's Compression Work, Ground Key Work, Brightwood Compression Work. Self-Closing Work, Broughton's Patent, and Miscellaneous Brass Work. These manufacturers mention that they are the sole manufacturers of Stebbins' and Brightwood Patent Compression Work, and Broughton's Patent Self-Closing Work. The bears date of March 1.

H. H. Harvey's illustrated catalogue and price list for 1884-85 shows the line of Stone he claims may be found the largest and \$22.50; Langloan, \$22.25 @ \$22.50; Summany important changes, is fully illustrated, from yard, \$21.75 to arrive; Eglinton, and describes the large variety of Hammers \$20.25 to arrive; Carnbroe and Glengarand other Tools of which Mr. Harvey is the nock, \$22.50 from yard and \$22 to arrive.

manufacturer, and will be convenient for reference to those desiring these articles.

The Enterprise Manufacturing Company, of Pennsylvania, Third and Dauphin streets, Philadelphia, in sending out their illustrated catalogue and price list for the present year, call attention to their various patented specialties, particularly to Mrs. Potts' Patent Cold-Handle, Double-Pointed and Square-Back Sad Irons, their American Coffee, Drug and Spice Mills, of which they make 20 different sizes, their new Meat Choppers and Cherry Stoners, Sausage Stuffers, Sausage Cutters, Self-Measuring Faucets, Bung-Hole Borers, Dried-Beeff Shavers, Cheese Knives, Tobacco Cutters and their wellknown Fruit and Drug Presses

The spring list of the Bindley Hardware Company, of Pittsburgh, Pa., is an exhibit of such seasonable goods as Forks, Hoes, Rakes, Scythes, Bush Hooks, Pruning Shears, Lawn Mowers, Wheelbarrows, Post-Hole Augers, Hog Rings, Harrow Teeth, &c., which will be interesting to their customers

The catalogue of Refrigerators made by R. Armiger & Son, 10 South Charles street, Baltimore, Md., presents an attractive line of these goods, and contains also descriptions and prices of other articles which they offer to the trade. They call special attention to the fact that they are now furnishing their Alpine Refrigerators with porcelain-lined water-tanks if desired. They also allude to the Walnut Buffet or Sideboard Refrigerators, and their Climax Refrigerators, furnished with sideboard backs, as handsome and desirable. The list explains at length the special features of excellence in this line of Refrigerators.

The Cincinnati Stamping Company, in presenting their catalogue of spring specialties in Japanese Ware, direct particular attention to their new line of Water Coolers, which they describe as substantially made of the best materials and beautifully finished. They add also that, in addition to their own manufactures, they carry a complete stock of Tin Plate, Galvanized Sheet Iron, Black Sheet Iron, and Solder, Pig Iron, Zinc, Lead, &c. Their catalogue contains lists, illustrations and descriptions of the line of Water Coolers, Bath Tubs, Toilet Sets, &c.,

which they offer in it. The list of the Fulton Manufacturing Company, 67 Washington street, Chicago, Ill., is before us, bearing date February 1, 1884, and covers a line of their Tin and Copper specialties, of which full descriptions are given, with list prices. Among the goods we mention the Peerless Copper Tea Kettle, Copper Parlor and Oil Stove Kettles, Coffee and Tea Pots, Porcelain Rice Boiler,

Egg Beaters, Cuspidors, &c.

IRON.

American Pig.-Some increased inquiry is noted among commission houses, and sales are a trifle more numerous than they have been. Trade appears to be on the verge of an improvement, as stocks of good Irons have not been accumulating, and several disturbing elements now seem to be not far removed from a settlement, and as soon as that is effected an increased demand can be reasonably expected. We allude to the labor difficulties among the Stove Founders stantly adding new shapes and sizes. It will at Troy and Albany, and among the Nailbe perceived by those who compare this list makers in New England. A considerable quantity of Iron will be diverted in those directions when operations are again resumed, which is now being marketed elsewhere, and that will necessitate an increased supply. Even if sufficient strength is not imparted to the market in this way to sustain it through the spring, there seems to be little danger that prices can be forced much lower than they now rule. Production has evidently been reduced on a level with consumption, or stocks would accumulate Further reductions in furnace workmen's wages will not materially cheapen the cost of this line. It is well printed, conveniently of making Pig Iron. Iron Ore is now about arranged and fully illustrated. The variety of fine Locks and elegant Trimmings are the wages paid the miners, which, in some very effectively shown, and include all their parts of Pennsylvania, amount to but 65¢ a patterns and styles, with the exception of a day. The price of Coal has been slightly few novelties which have appeared since the reduced, but so slightly that the saving on a catalogue was taken in hand. Such a volume ton of Pig Iron is insignificant. The conse is a reminder of the progress which is making quence is that furnace owners generally complain of their unprofitable business, and assert that more furnaces will be blown out if prices are reduced below the level of We are in receipt, also, of a new catalogue | those now current. The opening of the icebound Northern watercourses is expected to add its influence in the direction of better Springfield, Mass. This list is a very full business from this time forward. We quote standard Lehigh brands as follows, at tide water: No. 1 X Foundry, \$20.50 @ \$21, with retail lots and a few choice brands commanding from 50¢ to 75¢ more; No. 2 X Foundry, \$19.50 @ \$20; Gray Forge, \$18 @ \$19.

Scotch Pig .- A small amount of business has been transacted, and there has been some inquiry from the larger consumers of Scotch Pig. Receipts during the week aggregate about 1800 tons, mostly sold illustrated catalogue is accompanied by a to arrive. A few parcels were received by price list for the articles named in it, which parties who preferred not to store them, and they were disposed of as spot lots at something under quotations. The market is rendered somewhat irregular in appearance Cutters', Quarrymen's, Miners', Railroad, by occasional offerings of Iron for shipment Grist Mill and Blacksmiths' Hammers, under the present cost of importation. Sledges, Tools, Sleds, &c., of which he is Quotations range about as follows for No. 1 the manufacturer at Augusta, Me., where Irons : Coltness, \$22.50 @ \$23; Shotts, most complete stock of the above goods in merlee, \$21.75; Dalmellington, \$20.75; New England. The list, in which there are Clyde, \$20.50; Gartsherrie, \$22.50 @ \$23

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City, bu for large Scrap ported in een sold Of Cast delivered Scrap fro

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English Bessemer Pig.-Some inquiry is being made for round lots, but buyers, are made, but \$20.50 @ \$21 is asked by

Spiegeleisen. - Sales of several thousand tons have been made during the week, embracing 20 %, 30 % and 45 %, all on private terms. Nominal quotations are as follows For 20 %, \$28.50 @ \$29, with \$30 @ \$30.50 asked for some brands; for 45 %, \$45.

Bar Iron .- A slight improvement is perceptible in the demand for mill lots. Some 25 and 50-ton orders have been placed, which is an acceptable variation from the recent usual run of business. Purchases have for a long time been confined to meeting actual wants, and no disposition has been manifested to stock up in anticipation of business; but now there are some indications of a change in this respect, one transaction having come to our knowledge involving the purchase of 500 tons, which was bought in the belief that prices would be more likely to advance than to recede in the immediate future. Freight from Pittsburgh to New York is now only 12¢ \$\mathcal{P}\$ 100 fb, which is as low as it was in 1878 or 1870 before the "boom." This rate is regarded as only temporary, but it is assisting business in several ways. Trade from store is reported quiet, but with a little more inquiry than has been the case for some time. Customers report their products in somewhat better demand, and an improving trade is expected throughout the month of April at least. throughout the month of April at least. for treasurer, Carl Mayer; for secretary, Prices may be quoted about as follows: Best Edward J. Shriver; for managers, Joshua Refined, at mill, 1.85¢ @ 2.1¢; from store, 2.15¢ @ 2.3¢; Common Iron, at mill, 1.7¢ @ 1.75¢; from store, 2¢ @ 2.1¢.

Structural and Shaped Iron. -Some business has transpired during the past Crenshaw, Jr., George A. Boynton, F. L. week, but nothing of any special import- Lehmann, C. E. Maxwell; for arbitration soon be made for Beams for some of the mund Hendricks, William H. Davol, U. O. large buildings to be erected in this city this season. Indications of a very active build-T. D. Hazard, William Hagan. ing season are multiplying, not only for this round lots.

Plate Iron.-The demand for Boiler Plates is quiet, but there is considerably more doing in Tank, Ship and Bridge Plates. Prices are fairly quotable as follows: Com mon or Tank, 2.4¢ @ 2.6¢; Refined, 2.7¢ @ 2.75¢; Shell, 3¢; Flange, 3¾¢@4¢; Extra Flange, 4 1/4 @ 56.

Sheet Iron .- The demand for Light Sheets is improving, and some of the mills which sell their product in this market are reported full of orders for the whole of April, with more work offering. Other mills are not so well off, it is true, but they are generally those who hold for better prices. Heavy Sheets, Nos. 10 to 16, are quoted 2.8¢ @ 3.1¢. Lighter sizes are quoted in our New York Wholesale Price List.

Merchant Steel .- The trade generally is in the condition in which it was reported last week, but an improvement in some special lines is noticeable. Steel Plates and Sheets are in better demand, and buyers pres seem disposed to pay the prices asked, as orders have been placed without soliciting We quote as follows for store prices of best grades of Steel: American Tool Steel, 101/2¢, with a concession to large buyers; Crucible Machinery, 6½¢ @ 7¢; Bessemer and Open-hearth Machinery, 3¾¢ @ 4¢; Tank Steel, 4¢; Boiler Plates, 41/2¢ @ 51/6, with extra for special sizes; English Tool, 151/4.

Wire Rods .- The past week has wit. nessed an active demand for Steel Rods, have some difficulty in securing large lots at the inside figure.

Steel Rails.—Sales aggregating about 10,000 tons have been made by the mills represented here, 2000 tons having been taken by a Western mill, and the remainder by Eastern establishments. Inquiries for oth-r lots are in the market, but they are too frequently made by railroad companies which have securities to exchange or desire very long time for payment. Among the inquiries now being received is one for a delivery next winter. Prospective business, which may be actually placed, is so small that the market may be termed rather quiet. Prices are nominally \$34 at Eastern mill, some sales being made at figures slightly above that rate and others below it. One lot was sold at \$35, delivered at Jersey City. A 3000-ton lot was sold at \$34.581/3, delivered at an interior point, netting about \$33, 10 at

Old Rails. - Considerable business in this line has been transacted during the week, sales aggregating about 6000 tons. The Rails sold were mainly by railroad companies in this State, and prices realized were from \$21 to \$21.50 at terminals. Large lots are being offered by other companies. A small lot was sold at \$22 on board cars at Jersey City, but bids of \$20 are the best obtainable for large lots delivered in this vicinity.

Scrap Iron -Very little husiness is re-

made at \$21, ex-store. Another sale of 100 and Charcoal, 17/6 @ 19/ and sellers' views seem to be too far apart tons was made at \$21 at Baltimore. Crop to result in actual business. Bids of \$20 Ends are reported scarce, with some inquiry. Old Car Wheels .- We are reported a sale of 80 tons at \$18, on board cars at Jersey City.

TRANSACTIONS ON THE NEW YORK METAL EXCHANGE.

We are reported the following transactions s having occurred on the floor of the Exchange from Wednesday noon of last week

to Wednesday noon of this week:	
Wednesday, March 19.—Second Cal No transactions.	n.
THURSDAY, March 20.	
25 tons Straits Tin, April May	\$ 0.1814
FRIDAY, March 21.	
10 tons Straits Tin, May	.1816
SATURDAY, March 22.	
500 tons Pig Iron Certificates, June Monday, March 24.	18.50
25 tons Straits Tin, April	.1856
25 " Tuesday, March 25,	.1858
No transactions.	
WEDNESDAY, March 26,-First Call.	

The above sales embrace 500 tons Pig Iron Certificates (No. 2 Foundry) at \$18.50, and 130 tons Tin at 1814 ¢ @ 1856 ¢.

10 tons Straits Tin, April....

The nominating committee have reported the following ticket, to be voted on at the election on April 2: For president, T. Delafield; for vice-president, Frank Dickerson; Hendricks, John C. Cook, John J. Williams, John T. DeBlois, H. B. Moore, D. Houston, George V. Tompkins, George E. Moore, Henry P. Egleston, E. F. Driggs, W. G. It is expected that contracts will committee, J. C. Yates, A. G. Gorham, Ed-

The secretary has received reports for the city, but in other parts of the country. We month of February from 254 blast furnaces, continue to quote Angles at 2.4¢ @ 2.6¢ of which 62 were in blast and 192 out of from store; Tees, 2.9¢ @ 3¢ from store; that at the close of the month. The reports Beams and Channels, 3.5¢ on wharf for present the following aggregate in gros

All grades.	Unsold stocks.		Production.	
An grades.	Feb. 1.	Mar. 1.	In Jan.	In Feb
Anthracite Bituminous		16,264 47,830	12,695 40,558	10,788 88,684
Grand total	62,978	68,594	58,248	49,872

These returns indicate a decrease in Anthracite stocks and an increase in Bituminous stocks, but a decrease in the production of both kinds of Pig Iron. The stock of Char-coal Pig Iron at the furnaces reporting increased from 53,886 tons to 59,936 tons, while the production decreased 232 tons in February as compared with January.

METALS

Copper.-There has been an attempt, since we last reported, to exercise some pressure on the Copper market, and some small lots have been placed at a slight decline, not unlikely a prelude to contemplated larger purchases "to arrive;" but, we apprehend, condemned not to prove a successful move, inasmuch as the Chief Lake and other move, inasmuch as the Chief Lake and other companies have, as we explained before, no inducement whatever to submit to sacrifices while Copper is, from all appearances, safe enough, both as regards its statistical position and the current price, which, for large lines, remains at 14½¢ @ 15¢, Lake Superior; 14½¢ @ 14½¢, "Anchor" brand, and 14¢ @ 14½¢ other brands. From London we are cabled to-day to the following effect: "Market not so steady. Best Selected 266: and prices have again advanced. We now quote \$48 @ \$50, according to quantity and quality. It is stated that purchasers would \$50, according to \$61, and \$61, and \$61, and \$61, and \$62, and \$63, and \$63 and 452,881 in 1881; of Ingot Copper, 24, 230 tons, against 22,771 and 24,499. Export of Ingot Copper from the United States durof Ingot Copper from the United States during the first seven months of the current fiscal year, 11,934,673 lb, against 2,096,-387 the previous year, and Ore, 9277 tons, against 1874. Manufactures may be quoted as under: Bottoms, 24¢; Braziers, 24¢; eeting, 22¢, and Bolt Copper, 24¢.

Tin .- The manipulators for a rise are at work again simultaneously and alternately in London and New York, but received little encouragement to persevere in maintaining an artificial value by consumers, who are aware that there is nothing connected with the position of the metal to warrant the present high ruling; hence they all fight shy of it to the extent of their necessities The price in London has fluctuated the last few days between £84. 5/ and £84. 10/, Straits, which is held at 18½¢ here without meeting with any readiness to take hold of it, except urgent requirements compel a dealer or consumer to submit to the advance asked. We receive from London the ensu-ing cablegram this afternoon: "Market a little steadier. Straits Ingot, spot, £84. 5/ @ £85; and futures, £85 @ £85. 10/."

Import into the United States During the First Seven Months of Fiscal Year. Pounds Pounds. 1884. 17,478,755 28,900 1888. 16,138,712 59,584 Re-export..... Net import 17,454,855 16,074,128

Tin Plates .- With the exception of Coke Tin, in more active request at 5¢ @ 10¢ P box advance, our market has been quiet. We been sold on private terms, and a choice lot brought \$32.50 on board cars at Jersey City. Of Cast Borings, 250 tons were sold at \$9, delivered here. Best Selected No. I Wrought Scrap from yard is quoted \$22 @ \$23.

Crop Ends.-A sale of 500 tons was ruling low figures. They quote Coke 15/

Seven Months of		
Re-export	Pounds. 1884. 292,174,101 390,407	Pounds. 1883. 285,083,802 616,224
Net import	291,783,694	284,467,578

From London we are told that Tin Plates are a little steadier.

Lead .- Some 200 tons in small lots sold at \$4.15 @ \$4.20, and the market closes strong at the inside figure for Common Domestic, while St. Louis has been active and firm at fortified one, with every prospect of continuing so, based on the inherent strength of tinuing so, based by the fortified one we are wired to the following effect: "Lead is weaker. Common English Pig, £11. 5/@ £11. 15/." Export of Pig Lead from Spain in 1883, 126,888 tons, against 115,368 in 1882, and 110,875 in 1881. Manufactures are quoted as follows: Lead Pipe, $6\frac{1}{4}\phi$; Sheet Lead, $7\frac{1}{4}\phi$; Tin-lined Lead Pipe, 15ϕ , and Block-Tin Pipe, 45ϕ , less the discount to dealers.

Spelter and Zinc .- The demand for Common Domestic being in excess of the supply, our market has continued tending upward, and Common Domestic is now bringing \$4.65, with a likelihood of further improvement in view of the curtailed output. Silesian is worth 5ϕ @ $5/8\phi$. We quote Bertha Refined, 8ϕ . Sheet Zinc is quiet at $5/8\phi$ @ $5/8\phi$. We receive the following cable message from London to-day: "Market a little firmer. Ordinary at shipping ports, £14. 10/ @ £14. 12/6."

Import into the United States During the Fire

Seven Months of the Fisc	al Year.
Pounds 1884. Domestic	1883.
Net import3,866,789	12,118,916
Spanish Calamine exportati 30,161 tons, against 26,481	

Antimony—Has been only moderately active during the week at 11¢ Hallett, and 111/2 Cookson, at which the market close

IMPORTS

Of Hardware, Iron, Steel and Metals into

the Port of New Yo	rk for the Week end-
ing March 26, 188-	
Bardware.	Temple & Lockwood,
W & Co	Bundles, 74
	Cases, 2 Bars, 2
Boker Hermann & Co.	Bars, 2 Wagner W. F.
	Bundles, 289
Connel Alex	Bars, 54 Cases, 4
Cases, 6	Whitmore J. D. & Co.
Curley J. & Bro.	Steelware, case, 1
Cutlery, cs., 2	Woltmann & Mickerts.
Tools, case, 1	Wire rods, bdls., 186 Order,
Degrauw, Aymar & Co.	Forgings, 62
Chains, 8	Bars, 36
	Spring, bdls., 13 Old railway, tons, 50
Dunham, Buckley & Co.	Dundies, 200
Cases, 20	Cases, 36
Mach'r case 1	Cask, 1 Plates, 4
Mach'y, pkgs., 9	Rods, bdls., 13,310
Field Alfred & Co.	Wire, coils, 11,747 Old spring, tons, 98
Mase, cs., o	Packages, 44
Mach'v. case, 1	
Friedman, Lauterjung &	Iron.
Co.	Baring Bros. & Co. Bars, 4599
Folsom H. & D.	Wire rods, coils, 1928 Coddington T. B. & Co.
	Coddington T. B. & Co.
Gerdan Otto,	Sheets, bdls., 715 Sheets, bxs., 88
Gesawein F. A.	Crocker Bros
Ironware, cs., 2	Pig, tons, 400
Great Western Dis. Co.	Drexel, Morgan & Co.
Graef Cutlery Co.	Rivet rods, coils, 1381 Elliott, Sons & Co.
Cutlery, cs., 6	Ore, tons, 418
Hartley & Graham.	Irwin Richard & Co.
Hensel Bruckmann &	Pig, tons, 100 Naylor & Co.
Co.	Rods, bdls., 88
Cases, 6	Wire rods, bdls., 2004
Hermann Theo	Seligman Bros. Wire, cs. 5
Cases, 8	Wire, cs., 5 Spencer Arms Co.
Jacobson S. & Co.	Tubes, cs., 2
Cask, 1 Kuruhaadt Mfg Co	Stetson Geo. & Co. Pig, tons, 500
Machines os 0	Williamson Jas. & Co.
Lefferts, Marshall & Co.	Pig. tons. 200
Mach'y, pcs. 106	Order,
AFIIIB, CB., 13	Pig, tons, 718 Bundles, 300
Cask, 1	Wire rods, pkgs., 232
Gun barrols on 5	Spiegel, lot Spiegel, tons, 550
Moes F. W.	Wheels, 24
Files, cks., 3	Wire rods, coils, 394 Castings, cks., 2
Noyes, Smyth & Co.	Wire, coils, 175
N. Y. Bolting Co.	Rivet wire rode
Mach'y, pkgs., 32	colls, 893
N. Y. Bolting Co. Mach'y, pkgs., 32 Pratt & Farmer, Ironware, cs., 2	colls, 893 Bars, 1242 Tubes, 114
	ing March 26, 188 Bardware. Baermann & Co. Case, 1 Boker Hermann & Co. Hardware, cutlery and guns, pkgs., 71 Coppel Alex. Cases, 6 Curley J. & Bro. Cutlery, cs., 2 Daub Wm. Tools, case, 1 Degrauw, Aymar & Co. Chains, 8 Drexel, Morgan & Co. Arms, cs., 27 Dunham, Buckley & Co. Cases, 20 Duval H. R. Mach y, pkgs., 9 Field Alfred & Co. Mach'y, case, 1 Friedman, Lauterjung & Co. Cases, 2 Folsom H. & D. Arms, case, 1 Friedman, Lauterjung & Co. Bundles, 129 Gesswein F. A. Ironware, cs., 2 Great Western Dis. Co. Arms, cs., 12 Graef Cutlery Co. Cutlery, cs., 6 Hartley & Graham, Made., cs., 2 Hennel, Bruckmann & Co. Cases, 6 Fackage, 1 Hermann Theo. Cases, 6 Fackage, 1 Horris L. W. & Son, Gunbarrels, cs., 9 Lefferts, Marshall & Co. Mach'y, pcs. 106 Moore's Sons J. P. Arms, cs., 12 Cask, 1 Morris L. W. & Son, Gunbarrels, cs., 5 Moss F. W. Files, cks., 3 Noyes, Smyth & Co. Cases, 6 Nose F. W. Files, cks., 3 Noyes, Smyth & Co. Cases, 6

Wire rods, pkgs., 232 Spiegel, lot Wire rods, pkgs., 232 Spiegel, lot Spiegel, tons, 550 Wheels, 24 Wire rods, colls, 394 Castings, cks., 2 Wire, colls, 175 Rivet wire rods, colls, 583 Bars, 1242 Tubes, 114 Metals. Baring Bros. & Co. Plumbago, bbls., 150 Plumbago, bbls., 150 Black taggers, bxs.,2 Brown Bros. & Co. Plumbago, bbls., 645 Plumbago, bbls., 645 Blake Bros. & Co. Plumbago, bbls., 200 Bristol Brass Clock Co. Mdse., cs., 4 Cahn H. H. Cahn H. Ĥ. Tin, es., 6 Carter, Hawley & Co. Bank tin, slabs, 161 Downing H. F. & Co. Tin plates, bxs., 412 Dickerson, Van Dusen & Co.

Ironware, cs., 2 overling, Daly &

Gun barrels, cs., 87

Case, 1 Smith W. O. & Co. Mach'y, os., 3 Starr Theo. B. Case, 1. Taylor Thos.

Cases, 7 ebusch & Hilgo Hdw. and c

pkgs., 44

der, Nails, kegs, 48 Mach'y, cs., 28 Chain, cks., 2 Cutlery, cs., 4 Ironware, cs., 5

bbott Jere & Co.

Baring Bros. & Co. Wire, colls, 16,079 Boker Hermann & Co. Steel wire, cs., 6

pcs., 44 orton, Bliss & Co. Slabs, 52 oss F. W. Bundles, 187

Billets, 598 Slabs, 93 ammelf Bros. Sheets, bdls., 174

cutlery,

Tin and terne plates, bxs., 277
Elwell J. W. & Co.
Old brass, bbl., 1
Hauermann H.
Zinc dust, cks., 20
Heymann S. Heymann S. Tinfoil, cs., 9 Bars, 56 Wire bdls., 186 Cases, 21 Wire in colls, bdls., 124 ienberg N. Martin's metal, coils. Miller Frank & Son.

Miller Frank & Son,
Tin plates, bxs., 200
Phelps, Dodge & Co.
Tin plates, bxs., 7846
Reid John,
Sinks, baths, &c.,
pkgs., 15
Tiemann D. F. & Co.
Zinc oxide, cks., 50
Wilson John & Sons,
Zinc, pkgs., 15
Order. Cases, 2 Bundles, 128 rexel, Morgan & Co. undberg Gust, Ravet wire rods, coils, 6 Bessemer blooms, Order. der, Tin plates, bxs.. 2212 Tin plates and tag-gers, bxs.. 1910 Plumbago, bbls., 200 Black taggers, bxs., 471 471
Tin sheets, cs., 54
Tinfoil, case, 1
Terne plts., bxs., 403
Tin plates and taggers, bxs., 1229

EXPORTS

Of Hardware, Iron, Machinery, Metals, &c., from the Port of New York, for the week ending March 25, 1884.

Bremen.	Quan.	Val.
Quan. Va	Cartridges, cs. 4	72
Ag. imp.,pkgs 447 7,68		798
	5 Ptlm., gals7200	1,643
	Iron axles 2	95
Mach'y, pkgs. 14 1.00		246
		31
	Ag. imp.,pkgs 24	1,608
	Mach'v pkgs 34	4.294
Durch East Indies	· Hdw., pkgs 75	1,416
Ptlm., gals. 290,000 31,90	00 Cutlery, cs 3	82
Copenhagen	Clocks, pkgs 5	97
	Nails, kees 911	677
Ptlm., gals. 286,016 25,48	Pumps, pkcs. 15	1,566
Hdw., cs 14 36	Nails, pkgs 10	79
Clocks, pkgs 71 99	N Sew ma es 22	823
Mach'y, pkgs. 2 32	Steel rails 96	875
Christiania	Bridge mate'l,	010
Hdw., pkgs 27 1,15	8 _ pkgs 628	8,812
Ag. imp., pkgs 58 2	Tin plts., bxs. 4	51
	Fire ex., cs 4	480
	Iron, pkgs 2	160
Stettin.	Iron safe 1	64
Old met., bbls 5 30	00 Steel, bdls 30	837
Hamburg.	Tin, cs 7	74
	Brass, pkgs 2	75
Ptlm., gals.274,595 24,70		
Ptg.press, cs. 12 30	N)	** 100
Hdw., pkgs 124 2,40	6 Ag. imp., pkgs 425	11,480
Pumps, pkgs. 10 1,39	Mf. iron, pkgs. 6	150
Ag. imp.,pkgs 188 5,07	O Copper, casks 86	28,700
	59 Sew. ma., cs 8	70
Mf. iron, pkgs. 6	9 Cop. gds., cse. 1	700

19 Marseilles Ag. imp., pkgs 61 1,200 Ptlm. gals. 217,099 19,691 Porto Rice Ptlm., gals. . 22,072 Mf. iron, pkgs 119 Mf. iron, pkge 1 120 Hdw., cs. 63 934 Scales, cs. 3 106 Clocks, pkgs. 3 130 Ag. imp., pkgs 3 50 Mach'y, pkgs. 11 260 Sew. ma., cs. 380 8,873 Rotterdam. Ptlm. gals.294,935 26,025 Hdw., pkgs... Clocks, pkgs... Mach'y, pkgs. London. French West Indies. Ptlm., gals..10,000 1,150 Clocks, case... 1 7 Cadiz. Ptlm., gals..40,000 4,800 Saws, cs.... 3 10 Menico.

Cartridges, cs. 509 10,684
Mach'y, pkgs 64 8,485
Eyelets, cs. 10 713
Rifles, cs. 50 7,800
Scales, cs. 8 164
Ag. imp.,pkgs 148 1,686
Clocks, bxs. 593 11,449
Ox. zinc, bbls. 130 1,059
Pumps, pkgs. 8 504
P. caps, cs. 2 400
Cutlery, cs. 3 2,997
Hdw., pkgs. 195 1,846
Wriugers, cs. 5 90
Sew. ma., cs. 146 4,908
Plumb. mat'l,
pkgs. 55 996 Mexico.

Mach'y, pkgs. 115
Ag. imp., pkgs. 58
Saws, pkge. . 1
Nails, kegs. . 105
Cartridges, cs. 38
Bells, case. . 1
Scales, pkgs. . 5
Plumb. mat l,
pkgs. . . . 4
Brass g'ds,pge 1
Tacks, cs. . 8
Turbine. . 1
Car springs. . 96
Iron safe . 1
Arms, cs. . 2
Nails cs. . 6
Hdw., pkgs. . 94
Hdw., pkgs. . 94 pkgs... Bells, cs. 55 996 Glasyow Hdw., pkgs... 6
Ag. imp., pkgs. 22
Ice machine... 1
Pumps, pkgs. 2
Mach'y, pkgs. 8
Clocks, pkgs... 8 249 502 20,100 150 576 165

Arms, cs. 2
Nails cs. 6
Hdw, pkgs. 94
Mf. Iron, pkgs. 135
Ptlm, gals. 31,259
Spikes, kegs. 58
Pumps, pkgs. 45
Clocks, boxs. 5
Nails, box. 1
Revolvers, cs. 3
Sew. ma., cs. 185
Cutlery, cs. 4
Boiler 1
Per. caps, cs. 4 Leith. Ag. imp.,pkgs 9 239 Sew. ma., cs., 401 3,824 Bristol. Ag. imp., pkgs 320 6,200 Cork Ag. imp.,pkgs 578 9,750 Liverpoot. Central America:

Cartridges,cse Mf. iron, pkgs. Hdw., bxs.... Sew. ma., cs... Mach'y, pkgs. Brass g'ds,cse Ptlm., gals... Argentine Republi Saws, cs..... 20 Clocks, pkgs . 877 Argentine Repu-Hdw., pkgs. 103 Cutlery, cs... 2 Pumps, pkgs. 10 Ag. imp.,pkgs 113 Ptl., gals.115,500 Sew. ma., cs... 117 Clocks, pkgs. 11 Mf. iron, pkgs. 54 Revolvers, cs. 57
Hdw., pkgs. 45
M. rollers. ... 6066
Brass gds., cks 40
Wash'g mach. 1
Perf'd ir'n.cse 1
Br. gds., bxs. 5 2,282 2,434 2,500 5,284 60 260 545 Hull United States of U.

W. metal, case 1 47 Hdw., pkgs . 478 7,692 Pumps, pkgs . 8 403 Ptlm., gals., 54,800 7,795 Ag. imp., pkgs 778 19,625 Clocks, pkgs . 24 431 Sew. ma., cs . 33 961

Neva Scotia Mf. iron, pkgs 43 58 Ag. imp., pkgs 9 46 Ptim., gals...9500 1,230 Hong Kong. Pistols, case.. Bestinh East Indian. Ptlm., gals. 473,000 50,315 | Needles, case. Cartridges, cs. British West Indies. Mf. iron, pkgs 18 110 M. dust, bbls. 15 20 Hdw., pkgs... 77 Pig iron, tons. 59 Ag. imp.,pkgs 274 Cutlery, pkgs. 17 Chains, bbls... 2 Pumps, pkge. 1 44
Ptlm., gals...26,503 3,070
Hdw., pkgs... 2 12
Sew. ma., cs... 17 221
Mach'y, pkgs. 2 132

locks, cs. 2 3. tubes, cs. 12

Peru.

Sew. ma., cs.. 10 Mf. iron, pkgs. 12

Lisbon.

Uruguay.

Hdw., cs... Ptlm., gals.

Newfoundland. Ptlm., gals. .11,025 992 British Possession in Africa. British Honduras. Hdw., pkgs... 21 859 Nails, kegs... 25 89

 Nails, kegs.
 25
 89

 Copper pipes
 2
 37

 Ptm., gals
 2100
 236

 Sew. ma., cs.
 15
 179
 Clocks, pkgs. 95 1,348 British Guiana.

Val. 225 £82 200 Hauti Quan.
Sew. mch., cs. 34
Nalls, kegs... 172
Ptlm., gals... 200
Hdw., pkgs... 41
Lead, roll... 1
Cutlery, cs... 7 Mf. iron, pkgs. 16 Mach'y, pkge. 1 Val. 832 481 81 402 23 115 Africa. Frim, gais. 41 402 96 Hdw., pkgs. 41 402 97 Lead, roll. 1 23 104 Cutlery, cs. 7 115 8andwich Islands. 43 Hdw., pkgs. 33 585

COAL.

The Anthracite Coal trade is very uncertain and unsettled, and the Bituminous detain and unsettled, and the Bituminous department is little, if any, better. The opening spring prices, given in these columns a week ago, though indicating a reduction of from 25¢ to 40¢ ? ton, failed to start the expected boom. As yet, orders continue scarce, it being obvious that consumers will await the programme of April 1 relating to restriction. The latter reason that if there is no restriction, lower prices must follow, whereas higher prices will ensue should the production be lessened. The wholesale operators are equally in the dark wholesale operators are equally in the dark, fearing to load up with orders while pros-pects remain in doubt. Both operators and dealers consider present prices very low, but are disposed to recognize the fact that a severe pressure is felt from the Bitumine severe pressure is felt from the Bituminous interest. Another element that adds to the confusion is the demoralizing effect of half-time on the miners and laborers, who have been compelled to live on short wages for about four months, and are not disposed to submit. Signs of discontent are observed just now with unusual interest. now with unusual interest. The new prices are as follows:

Broken. Egg. Stove.\$3.70 \$3.75 \$3.95 on.. 3.80 3.80 4.15 Pittston at Newburgh... D. & H. at Weehawken.. Wilkesbarre at Port John-
 Wilkesbarre at Port Johnston
 3.80
 3.80
 4.15
 4.00

 Scranton at Hoboken
 3.80
 8.80
 4.15
 4.00

 Honey Brook at Pt Johnston
 4.25
 4.25
 4.15
 4.00

 Id Co.'s at Eastport
 4.40
 4.25
 4.25
 4.00

 Reading Hard White Ash, at Eastport
 4.10
 4.10
 4.15
 4.00

 Reading Hard White Ash, at Philadelphia
 8,75
 8.75
 3.90
 3.65

 The new tolls of the Chesapeake and Delaware Canal have so far had very little effects

aware Canal have so far had very little effect in stiffening the prices of Clearfield Bituminous by diminishing the competition from nous by diminishing the competition from Cumberland. Prices continue irregular. ranging as low as \$3.55—indicating that the reported agreement is lacking in fact. The total smount of Anthracite Coal sent to market for the week ending March 15, as reported by the several carrying companies, was 454,818 tons, compared with 450,843 tons in the corresponding week last year. tons in the corresponding week last year.

4 202 451 258 95 272 70 OLD METALS, PAPER STOCK, &c. The purchasing prices offered by dealers

6.47	Landania Parces Office	a serve a	ry u	COUNTRY
08	are as follows:			
56	Copper, heavy W b.	80.11	0	.1134
	light	.10	6	
16	Copper Bottoms	.10	6	.1016
25	Yellow Metal	.071		
88	Brass, heavy	.091		
9	" light "	.07	3 6	*****
23	Composition, heavy	.11	6	.1136
68	Lead, heavy	.081		
98	Tea Lead	.08	600	Out
55	Zinc	.028		.00%
16	Pewter, No. 1	.14		8 554
	" No. 2	.10	00	****
82	Wrought Iron & ton,	20.00	0	****
29	Light "	12.00	0	40.00
61	Stove Plate Iron "	10.00	0	18.00
40	Machinery " "		0	10.50
46	Grate Bars "	14.50	0	15.00
	Stereotype Plates 9 b.	4.50	. 60	*** *
75	Stereotype Plates	.041		0.05
72	Small Type	.081		.0834
e.	Courses who	.05	0	.0512
74	The prices current (prices	paid	by	local
45	dealers) for Rags, &c., are as	Follow	70 .	
66				
12	Canvas, Linen	B D,	816	@4 0
20	White Cotton, New	44	812	@
177	NO. %	1.6	236	@ 21/40
10	White, No. 1	66	344	@4 0
10	NO. 2	**		02 0
	Seconds	1.6	36	@1 0
	Soft Woolens	4.4	5 (06 4
	Mixed Rags	44	116 (0 1340
19	Gunny Bagging	44		ae
	Jute Butts	X 4.		Q ¢
12	Kentucky Bagging	6.6	(a 3346
11	Book Stock	44	134 6	02 4
8	Newspapers	44	1 6	D 6
	Waste Paper and Scraps	4.4	16 6	à¢
13	Kentucky Bale Rope.	6.6		0.4
V7	The state of the s			OF A

FOREIGN TRADE MOVEMENTS.

618			
489	FOREIGN TRADE MC	VEM	PNTN
1,015	TOTAL TENDE	A RESERVE	DATE.
7,900	The following shows the in	mndeta	of hand
57	ware and matala at this are	tapor vo	or mard
121	ware and metals at this po	rt for	the week
68	ending March 21:		
7,727		Pkges.	Value
2,611	Antimony		\$20,810
560	Brass goods	39	8,19
186	Bronzes	11	2,60
196	Chains and anchors		65
682	Clocks	87	8,67
466	Copper		9,61
228	Cutlery	118	47,79
156	Guns	101	18,87
88	Hardware	17	1,85
1,200	Iron, pig, tons	2,486	55,427
65	Iron, sheet, tons	58	
44	Iron ore, tons	800	3,550
		29	147
280	Iron tubes Iron, other, tons	1.658	56,072
450	Lead, pigs	410	1,470
1.132	Machinery	192	10,316
9,400	Metal goods	369	24.702
88	Nails	63	224
290	Needles	16	6,443
25	Nickel	17	5,925
1.000	Old metal		306
136	Platina	3	8,833
694	Plumbago	2,049	20,310
31	Plated ware	6	876
804	Pins	55	2,538
14	Saddlery	15	
282		38,068	1,898 59,447
40		57,369	2,028
270			
210	Tin, boxes	01 900	398,690
	Tin, 5,302 slabs	468	
939	Ting ovide	850	6,641
2 190	Zinc oxide	900	3,407

The comparison with previous dates is as

follows:			
	For the week.	12 weeks of 1884.	Same time 1888.
Cutlery, pkgs	118	1,326	1.741
Hardware, pkgs	17	219	295
Iron, R. R., bars	****	9,220	4,229
Lead, pigs		8,661	103
Steel, pkgs	38,068	173,584	568,757
Tin, bxs	88,543	385,895	411,642
Tin slabs, fbs	591,200	4,700,928	4,549,142

PHILADELPHIA.

Office of The Iron Age, 220 South Fourth St., PHILADELPHIA, March 25, 1884.

Pig Iron.-There is not much change to Hdw. pkgs... 4 88 report, although some of the companies are Iron, case.... 1 65 trying to talk better prices, but as yet there is nothing to warrant anything of that kind. The demand is moderately active, but no large lots are called for, buyers showing as much caution as ever, taking only what is required for immediate Ptlm., gals... 5000 811
Hdw., pkgs... 2 42
Clocks, cs... 2 90
Mf. iron, pkgs. 598 3,627
Hdw., cs... 3 116
Ptlm., gals... 10,000 1,075
Clocks, pkgs... 2 1639
Hdw., pkgs... 2 1639
Hdw., pkgs... 2 5 305
Hdw., cs... 3 116
Ptlm., gals... 10,000 1,075
Clocks, pkgs... 2 1639
Hdw., cs... 1639
Hdw., cs... 3 116
Ptlm., gals... 10,000 1,075
Hdw., cs... 1639
Hdw., cs... 1639
Hdw., cs... 3 116
Ptlm., gals... 10,000 1,075
Hdw., cs... 1639
Hdw., cs... 1639
Hdw., cs... 1639
Hdw., cs... 3 116
Ptlm., gals... 10,000
Hdw., cs... 1639

very much in the same condition as they have been for several weeks past. There are some indications of a more active de mand, however: inquiries are more numerous, and there is an evident disposi-tion among some of the large buyers to place orders where concessions can be had, but not otherwise. This is particularly the case with Mill Irons, and at about \$17.50, delivered at tide, several thou-sand tons could doubtless be placed at once. Sellers ask \$18, however, and, while they are anxious to find buyers, there appears to be a determination to maintain prices until the probable requirements of consumers can be more clearly estimated than at present. This is one of the most difficult problems with which the trade has to deal, and while the indications are certainly more favorable than they were a little while ago, they are not of a character to encourage much speculation. With light stocks both much speculation. in consumers' hands and at furnaces, and prospects of consumption at least equal to what it has been during the past six months. there is but little chance of lower prices, while, under a very slight increase in consumption, there is some reason for the opin-ion that prices might stiffen a little. Meantime, as already stated, buyers and sellers are inclined to take whatever risk there may be in delays; hence sales are still chiefly in small lots. No. 1 Foundry Iron sells at \$20 @ \$21, No. 2 at \$19 @ \$19.50, with the majority of sales at inside or medium figures, only choice brands bringing the outside quotations. Sellers of certain brands of Southern Iron are offering them at \$19 for No. 1 and \$17 for Gray Forge, delivered on wharf, Philadelphia. The extra cost of on wharf, Philadelphia. The extra cost of handling is probably 50¢ \$\mathbb{P}\$ ton, but even then it affects the market seriously, although sales have not been important as yet.

Foreign Iron-There continues to be a fair demand for Bessemer in lots of from 500 to 1000 tons each, with some saies at Offers of \$20 have been made for 2000-ton lots, but, so far as known, \$20.50 is the lowest rate quoted for prompt shipments. Spiegeleisen is held at \$29@\$29.50 for 20 %, but no recent transactions have been re-Sales of 30 % at \$32 are mentioned to-day.

Blooms.-The market is very dull and sales difficult to make, unless for very favor ite makers. Asking prices are about as follows: Charcoal Blooms, \$55 @ \$56; Runout Anthracite, \$45 @ \$46; Scrap Blooms, \$42 @ \$43 ; Northern Ore Blooms, \$39 @ \$41 Muck Bars. -The demand is rather slow,

but prices show no change. Sales have been made at prices ranging from \$31 to \$32 at mill, according to quality and location of

Bar Iron.-The market continues much the same condition as it has been in for several weeks past, with possibly some little improvement in the outlook. With seasonable weather and the opening up of country roads a more active business is naturall looked for, and, as stocks are light every-where, anticipations of this kind appear to be well founded. Besides this, it is not many weeks to midsummer, before which time it is usual, with both dealers and consumers to lay up an assortment of stock to mee contigencies in case of a protracted suspen-sion of work during the hot season. Prices are also down to a point from which it is hardly possible they can go lower, so that, while there may be some advantage in stock ing up, there is a degree of risk in running stocks too close at this season of the year. However, the feeling is one of extreme cau-tion, and unless forced into the market buyers show very little disposition to place orders. The large consumers, such as Car builders, are not very actively employed, Neither is there much work in prospect, so that the loss of this trade is felt rather severely at the Bar mills. Reports from the interior appear to be more favorable than on the seaboard, a considerable amount of local work being done in some sections, while the reduction in freights enables them to unload Iron east on very favorable terms. The Iron east on very favorable terms. The Best Refined Iron still commands 2¢, although a vast amount of material is sold at 1.85¢ @ 1.9¢, but special brands are held at higher prices.

Structural Iron.—The past week has not developed any increase in the demand, although there is the usual amount of business talked about. Some considerable con-tracts for Bridge-work will certainly have to tracts for Bridge-work will certainly have been in sight that of last month; consumers are returned be closed soon, but they have been in sight to buy a ton more than their immediate so long that they will have very little influant actual necessities require; orders for Financian are not coming forward very work seems to have been secured in the freely, in addition to which prices are un-West of late, but prices are too low for this settled and unremunerative, and this being market. Quotations are nominally changed, but the feeling is weak, and on desirable orders it is not unlikely that concessions could be had, Beams and Channels being subject to 12½ % discount on orders for not less than 50-ton lots. Angles are held at 2.2¢ @ 2.25¢; Bridge Plates, 2.25¢; T's, Beams and Channels, 3.5¢.
te and Tank Iron.—Business has

Plate and Tank Iron. been very quiet, and, with the exception of a tolerably fair demand for Boiler Iron, very few orders have been entered of late. Prices are irregular, but on small lots the usual asking rates are about as last quoted, viz. Boat Plate and Tank Iron, 2,26 @ 2,256 Shell, 2.75¢ @ 2.85¢; Flange, 3.75¢@ 3.85¢ Fire-Box. 4.75¢.

Sheet Iron.—There is a better feeling throughout the trade and decidedly more activity. Prices have reached a point at which no further reductions are possible; hence a more active demand from the heaviest class of buyers, with indications that the movement is likely to become gen-There is no change in prices, however, and so long as competition continues as has been of late, there is little chance of an advance, although a slight stiffening in values is not improbable. The

usual rates are acour as tonows.
Best Refined, No. 38 Best Refined, Nos. 26 and 27
Best Refined, Nos. 26 and 27
Best Refined, Nos. 21 to 25
Best Refined, Nos. 18 to 20
Common, 14¢ less than the above
Best Bloom Sheets, Nos. 25 to 25
Best Bloom Sheets, Nos. 22 to 25
Best Bloom Sheets, Nos. 16 to 21
Common Red Plates, 3-16 to 16
Blue Annealed
Best Bloom, Galvanized, discount
Second quality, discount
Common

Wrought Iron Pipe.—There is no change in this branch of the trade. Business continues up to the improvement noted last Prices are unchanged, viz: Welded Black Pipe, 27½ @ 30 %; Butt-Welded Galvanized, 17½ @ 20 %; Lap-Welded Black, 47½ @ 50%; Galvanized, 32½ @ 35%; Boiler Tubes, 47½ %.

Steel Rails .- There is very little to report in this department, business continuing n much the same condition as it has been for several weeks past. There is no demand for large lots, and, while sellers would be willing to treat on liberal terms with cash buyers, there is no disposition to force business. Small lots sell at \$34 @ \$34.50 at mill, and for such there is a fair demand. Light Rails are also somewhat active, with sales at \$38 @ \$40 at mill, according to

Old Rails .- There is some inquiry for Rails, but not at prices likely to lead to immediate business. Buyers offer \$21.50 for large lots, f.o.b. cars, while small lots can be placed at \$22 @ \$22.50. Holders ask \$20 @ \$20.50 for T's at Eastern shipping points, and \$22.50 @ \$23 for Philadelphia deliveries, and \$23.50 for Double Heads.

Scrap Iron .- The demand is very limited, but for small lots prices are well maintained. Cargo lots offered for shipment at \$22.50, with buyers at about \$22, and from that to \$24 for carload lots of choice No. 1.

Nails.-The demand continues fair and prices are well sustained, \$2.60 being the regular selling price for ordinary-sized lots.

PITTSBURGH.

[Special Dispatch to The Iron Age.] PITTSBURGH, PA., March 26, 1884.

At the meeting of the Nail Association to-day, all sections of the West were represented. After a thorough discussion of situation the association reaffirmed the \$2.60 card. Nails, however, can be bought 10¢ below the card. The next meeting will be held on the 9th of April. It is whispered confidentially through Pittsburgh that an effort will be made to strengthen the association and give it a greater control of production and prices than it has heretofore had.

Office of The Iron Age, 77 Fourth Avenue, Pritisburgh, Pa., March 25, 1884.

About the only cheering feature we have to report is the weather, which has improved considerably within the past day or two, but the country roads continue in an almost im-passable condition, and this has an unfavorable influence upon general business. Advices from nearly all points report trade as being backward and unsatisfactory; but with the advent of good weather, now believed to be close at hand, an improvement is looked for all along the line.

The crop reports from nearly all sections continue favorable, and this, in connection with the fact that farmers generally are in good condition, leads to the belief on the part of manufacturers that there will soon be an improved demand for all kinds of manufactured goods. The continued agita-tion of the tariff in Congress has an unfavorable influence, although it is not generally believed that there will be any important changes made at the present sessi

Labor complications are still of common occurrence; scarcely a week passes but there is a hitch somewhere. The coal miners in pool No. 3, Monongahela River, have struck against a reduction from 31/4 to 31/4 P bushel for mining, but it is believed that they will succumb to the inevitable within a few days. The Coal business here, like almost all branches of manufacturing, is overdone, and the cost of production must be reduced in order to meet competition, which never was more active and sharper than at present. A great many manufac than at present. A great many manufac-turers are willing to work for nothing, well satisfied if they can only hold their own in order to keep their trade, trusting to a change for the better in the near future.

Ore—Late and reliable advices from Clevenand report a more cheerful feeling in Ore circles. It is stated that about 1,400,000 tons of Lake Superior Ore have been chiefly at Cleveland.

Pig Iron.-There has been no important change in this market during the past week; business continues dull; the demand has the case, it is not strange that the move-ment of the raw article is confined to com-paratively small limits. Prices, however, are will maintained, and there is no disposition to make concessions. Producers say that rather than sell below present prices they will blow out. Neutral Mill Irons are quiet, but steady at \$17.25 @ \$17.50, 4 mos., for that made from native Ore, and \$18, 4 for that made from Lake Superior In regard to Bessemer Iron, blocks may be quoted at \$20, cash, and \$20.50 4 mos., with small sales for foundry use at 50¢ to \$1 \$1 ton additional. The emand for Foundry Irons is of a hand-to-pouth character, but few buyers take more an a carload at a time. We repeat former

quotations :	
No. 1 Foundry \$30.00 @	\$21.00, 4 mos.
No. 2 Foundry 18.50 @	19.00, 4 "
Neutral Mill 17.25 @	
All-Ore Mill 19.00 @	30.00, 4 **
Silvery Iron 18.00 @	18.50, # **
Cold-blast Charcoal 26.00 @	81.00, 4 "
Warm-blast Charcoal 24.00 @	96.00, 4 44
Bessemer Iron 20.50	

Muck Bars .- The last sale reported was at \$11, cash, and more is offered at the same figure, although some of the mills re

Manufactured Iron.-The general posi tion of the market remains unchanged; manufacturers almost without exception continue to report trade as being disappointexception ing, and prices irregular and unremunerative; buying, and "must soon come into the marbut they are hopeful that within the next ket to place their orders." While these but they are hopeful that within the next week or two there will be a change for the better. Competition is sharp, and orders, it is rumored, are being taken for delivery at points of distribution South and West at or below actual lay-down cost. Quotations are likely to continue this course. Almost

still made on a basis of 1.80¢ @ 1.90¢ for Bars, but it is said that desirable orders are being taken at considerably less than the prices quoted.

Nails .- The demand is only fair, and orders mostly small, and it is evident that large buyers are holding back in expectation of lower prices. There is considerable in-quiry, and both jobbers and consumers are watching the market closely with a view to buying whenever, in their opinion, the proper time arrives. That there will be a good spring trade is generally admitted, and, as already stated, buyers are only holding back in order to take advantage of lower prices, should they go lower. o onote carload lots at \$2.35 @ \$2.40, net cash, and 5¢ @ 10¢ additional in a jobbing

Wrought Iron Pine .- A new discount list has been issued, the most important fea-ture of which is an advance of 2½ % on less The new list is as folows: On Black Butt-weld Pipe, in car lots, 30 %; less than a carload, 27 ½ %; Galvanized, 20 % and 17 ½ %. On Black Lapwalded Pipe, carload lots, 50 % off; less than carload, 47½ %. For selected Pipe or Pipe cut to lengths, 5 % less in the gross than on regular Pipe. Trade continues backward.

Steel .- Some of the Merchant Steel Mills report a fair trade, but none of them are orking full; prices are lower than ever fore, and still shrinking. Best brands of Refined Cast-tool Steel, 9½¢ @ 10¢; do. Crucible Machinery, 5¢; Open Hearth and Bessemer do., 31/4.

Steel Rails.-While the mills are still in operation there is but little inquiry, and there have been no recent sales. So far as can be learned, there have been no sales under \$35, cash, at mill, but whether a desirable order would be refused below that price we are unable to say.

Old Rails .- We are advised of sales both at \$23 and \$23.50; 1000 tons reported at last named figures. Consumers quote at \$23, while brokers say that they can obtain no desirable lots under \$23.50 @ \$24. The most of the stock is now owned by railroad companies, and, as a rule, they exact outside figures always, not being forced to sell, as is sometimes the case with individuals.

Railway Track Supplies .- The demand continues light and prices weak, but unchanged. Spikes, 2½¢, 30 days; Splice Bars, 1.75¢ @ 1.80¢; Track Bolts, 2½¢

Crop Ends.-There have been no sales of American reported in this market for several weeks. Prices weak We reduce our quotations to \$20.50, cash; can be bought at the price quoted.

Scrap.-No. I Wrought Scrap nominal at Serap.—No. I Wrought Scrap nominal at \$20 @ \$21 net ton; Wrought Turnings, \$16 @ \$17; Old Car Axles, \$29 @ \$30; Cast Borings, \$12.50 @ \$13, gross; Old Car Wheels, \$19 @ \$20, gross.

Coke.-Blast-furnace Coke is quoted at 95¢ @ \$1 \$2 ton, free on cars at ovens. A combination has been formed with a view to regulating production and arranging price...

Trade continues slow for the season, but all that can be expected in view of the depressed condition of the raw Iron trade.

CHICAGO.

Office of The Iron Age, 36 and 38 Clark St., Cor. Lake St., Chicago, March 21, 1884.

Hardware.-The condition of the weather during the past week has given life and vigor to the Hardware trade. Jobbers are busy on shipments of Forks, Rakes, Shovels, Picks, Hoes, Axes, &c., Carpenters' Tools and Paints; in fact, all kinds of goods used in the open air have taken a prominent place in the week's business. Shelf goods are fairly active, while railroad supplies keep pace with the season. Barb Wire continues firm, and the demand considerably exceeds present supply, if current rumors are reliable. We quote Painted Four-point at 4½¢; Galvanized Four-point at 5½¢, and ½¢ \$\mathcal{B}\$ \$\mathcal{B}\$ additional for Two-point and Thick-set

Nail . . The demand for Nails of all sizes has been much stronger than the week previous. They are taken, however, in small lots only, and no strength in price is shown. Buyers are compelled to carry a stock at this season, but it is their effart to make it as light as possible Prices range Prices range \$2.50; from \$2.55 to \$2.60, 2 %, 60 days, from store, and are quoted at \$2.50 for carload lots. ering, the doubt is whether the latter could not be shaded. So far the supply is equal to the demand, and the predicted carcity has no weight with the purchaser, whatever reality it may contain.

Ore.-Much interest has been centered in the Ore question within the last two months by manufacturers of Pig Iron in the western territory. The output of Lake Superior Ore for 1883, in round numbers, was 2,200,000 tons, of which very little was carried over at the opening of navigation this spring The actual sales of Lake Superior Ore fo this year foot up 1,500,000 tons at this time. perhaps as much as will be produced. The scarcity of labor, caused by the reduction of wages, made necessary by the declining figures for Iron, will figure largely in the amount of Ore mined. Many mines are so ocated that they cannot market their Ore unless they can realize greater than present prices. A recent offer of \$62.50, cash, by prominent firm in this city, was made for 1000 tons on dock at Cleveland, which was refused, the holders asking 25¢ a ton additional. In view of the fact that contracts for Ore have been made at considerably lower rates by furnacemen, which have already been discounted on Pig Iron, the prospect of an increased product is not good.

American Pig Iron.-For weeks the market for Pig Iron has been standing pretty nearly in the same position. The demand is fairly good, and there are numerous inquiries from heavy consumers, who, from week to week, have been on the verge of

daily an odd lot is picked up at a fraction Borings, \$6; Old Plow Steel, \$10; Tool below market price, being a "forced sale" Steel, \$10, \$19; Steel Tire, \$1 net ton, or onle special reason, or the fag end of an exhausted stock disposed of to make room for new metal at an "off hake room for new metal at an "off figure," or for other reasons. The demand absorbs production at the present rate, which keeps the market clear of surplus, and in a condition to respond to whatever impetus a favorable opening of spring trade may furnish. Charcoal Irons are the strong est in demand and the least in quantity. The best brands of Coke are not in over-supply, and are increasing in demand to substitute for other Irons. Soft Southern Irons are the most plentiful, and for this reason the point where concessions are generally sought for, and used as an entering wedge on the balance when possible. We can learn nothbalance when possible. We can learn nothing that would change the following quotations for carload lots, 4 months, with a postations for carload lots, 4 months, with a possible discount of 50¢ for cash: Lake Superior Charcoal, Nos. 1, 2 and 3, at \$22.50 @ \$23; Nos. 4, 5, and 6 at \$24; Lake Superior Coke at \$21 @ \$22.50; Lake Superior and Ohio, mixed, at \$21; Ohio Standard Black Band, No. 1, \$22 (@ \$23; Southern, No. 1, at \$20.50, and No. 2 at \$19.50; Silvery Soft at \$19 (@ \$21; Anthracite, No. 1, at \$22, and No. 2 at \$21.

Scotch Pig.-The demand is so manifestly slow that dealers and buyers are alike addifferent to the market, which does not turnish enough material for a satisfactory Glengarnock is quoted at \$27 @ \$28 the flatter usually commanding 50¢ \$\text{p} ton pess than Summerlee.}

Merchant Steel .- Business in the Merchant Steel trade is slowly recovering. revival moves with a stealy firmness implies a better demand and more reliable prices, if not better profits. Tool Steel of questionable make and quality is sold at from \$\psi\$ to \$\psi\$ \$\pi\$ b, and this price, or even less, is likely to prevail for some time. For the better grades the demand, both from store and mill, is more active. No change in quotations for the Best Refined grades, which are as follows:

	r er poume.
lest Refined Cast Tool Steel	
rucible Cast Machinery Steel	614 @ 612¢
pen-Hearth Machinery Steel	314 @ 3340
lessemer Machinery Steel	3 @ 3340
pen-Hearth Spring Steel	316 @ 131/c
oe-Calk Steel	. 814 @ 814¢
led-Shoe Steel, flat	
led-Shoe Steel, curved	814 @ 8160
lessemer Steel	8 (a 314e
ast Plow Steel	
erman Plow Steel	837 00 4146
vndicate Steel	
ire-Box and Boiler Steel	
	100

Steel Rails.-Chicago mills continue to quote \$37 @ \$39 for all inquiries. Business is quiet, and no orders of consequence seem to be on the market.

Old Rai s .- The market for Old Rails has been more active during the past week, though no large transactions have come to light. For Chicago or Milwaukee delivery, \$19 @ \$20 is quoted, and a sale at Detroit at \$22.40.

Bar Iron .- Orders for Bar Iron are com ing in with great freedom, and in lots running as high as 200 tons. Those who are fortu-nate enough to handle the quality of Iron that commands the trade, are fully satisfied with the volume of business, and are strain The demand that has been strong for Best Refined has not changed the price, which is \$2 @ \$2.10 for "new puddled," from store, with concessions to heavy buyers and desir able specifications. During the week rumors were current that a break had occurred among the Bar Iron trade, and that prices had been cut to \$1.60 rates from mill in Chicago; but a careful investigation failed to confirm the report, which has since been denied.

Norway Bars .- The 4¢-rate continues, and a more active market prevails, though transactions are small.

Structural Iron.-During the week sev eral contracts have been placed for Struc-tural and Shaped Iron for new buildings to be erected in the early summer. There are many others under contract, as well as sev-eral viaducts and bridges for which large quantities of Iron will be needed. In addition to this local demand, out-of-town orders are floating more freely, and the prospect for a busy season is very fair. From mill we quote: Beams, \$3.60; Channels, \$3.60; T Iron, \$3; Angle Iron, \$2.50; Flitch Plates, \$2.50; Frieze Plates, \$2.70. From store, ¼¢ @ ½¢ extra.

Plate and Tank Iron.-There is nothing w in this branch. Orders are or slowly and in no great quantities, though better than several weeks ago. The follow-ing quotations are from store: Tank, \$2.50 @ \$2.60; Shell, \$3.25 @ \$3.50; Flange, \$4.25 @ \$4.50; Steel Boiler Plates, \$5 @ \$6.50, from mill, or, under favorable circumstances, se prices could be shaded.

about the market. The demand is rather of the better, but the prices prevailing are sick-ening to manufacturers and dealers. New manufacturers, seeking a market for their No. 1 E. Sheets, have resorted to cutting, which so thoroughly distracted the legitimate trade that manufacturers who have been in the market for years have been drawn into the While Juniata is quoted at 50 and 5 % off, and Refined at 55 and 5 % off, there is no positive way of determining what it is being sold for, as prices seem to be cut in a revengeful spirit rather than in the interest of

Black Sheets. — The past week has shown some improvement in Light Sheets, which have been very quiet for some time. In Heavy numbers there has been a fair demand, though of a very promising nature. We note another decline of 10¢ in the lighter grades, as follows: We quote Nos. 10 to 14 at \$2.60 @ \$2.70; No. 24 at \$3.20; Nos. 25 and 26 at \$3.30, and No. 27 at \$3.40.

Scrap Iron.-The market has an abundance of old material of a miscellaneous character offering. Mills are paying \$17 @ \$18, for Chicago or Milwaukee delivery, for \$15; Buggy Springs, P net ton, \$18; Malleable Scrap, \$5.

Old Car Wheels. The demand for Old Wheels continues quite brisk, while the supply is not abundant. We hear of standing offers of \$18 for Common, but holders are asking \$19 @ \$20 for the same class. Selected Wheels are scarce, and would command more

EVERETT & Post, 156 Lake street, Chicago, report to us as follows, under date of March 22, 1884: Pig Lead.—The week's transactions have been principally with consumers, and at prices ranging from \$3.85 to \$3.90, although but little has been sold at former figure. All advices from the West confirm last reports of a large decrease in output of ores, especially in Colorado, and with the opening of a spring trade the stocks of Pig Lead on hand would be soon ex-hausted. We quote the market here at \$3.90 asked.

CHATTANOOGA.

Office of The Iron Age, Carter and Ninth Sts., CHATTANOOGA, March 24, 1884.

Business in the South has been sharply stimula'ed by the opening of spring. The weather has been fine during the last few days, and vegetation is coming forward very rapidly. Farmers are busy with their crop preparations, and this somewhat limits the movement of general merchandise. The late freight war between Southern railway companies managed from New York cut rates down about three-fourths the old schedules, and this was taken advantage of by buyers to hurry South large bills of all kinds of merchandise. Streams are in fine boating condition, and corn, wheat, oats, farm products generally, as well as Ore and Coal, are being pushed to market and con-juming points. The building business in uming points. The building business in southern cities in the coming spring and number promises to be immense.

Pig Iron —There is nothing new to re-

port in the market for crude metal. Business is large, but the movement consists chiefly of small cash or short-time lots and silling contracts made in February. The reluctance of holders to sell for future de-livery at quotations continues. No standard makes can be bought for summer or fall de livery except at \$1 advance.

Miscellaneous Articles .- Old Rails are rather scarce and rule strong at \$22. There
a considerable demand for them for ship-A Scraps are dull except No. rought. Cast Scrap nominal, \$11 @ \$14; rought Scrap, \$18 @ \$22; Old Wheels ominal, \$18 @ \$20.

Nail .- We quote at \$2.50 for large bills, 60 days, 2 % off for cash, and strong. Stocks are light and much broken. Job lots 10¢ @ 15¢ higher than carloads.

Merchant Iron .- Bar is dull at \$1.85 for assorted carload lots, usual deduction for cash; Bolts, \$2.80 @ \$3 for Square and Hexagon Heads; Spikes, \$2.25; Splices, \$1.90;

Coal .- We quote Fancy Lump at \$3; ommon, \$2.50; run of mine to manufactur ers, \$1.50 @ \$1.75 at mills.

Coke.—We quote at \$2 @ \$2 20 at fur-

CINCINNATI.

March 24, 1884.—Pig Iron.—Business confined almost exclusively to deliveries on former orders and for immediate uses; the conditions of supply, demand and prices remain as reported last week. The rolling mills and machine shops are all in full operation. It is reported that the stove foundries expect to generally resume work about April 1. Quotations for the past week:

Best No. 1 Hanging Rock Charcoal		
Foundry	\$23.00 @	\$28.50
Good	22.50 m	
Tennessee and Alabama No. 2, \$1 less.	-	21.00
Hanging Rock Coke	30.00 @	120.50
Good	19.00	
Virginia, Alabama and Tennessee,		40.100
for Nos. 2 and 1	18.50 @	19.00
American Scotch No. 1 Hanging	-	20100
Rock	20.25 @	*****
No. 2	19.95	
Begt Hanging Rock Silver Gray		
Softeners, No. 1	19.75 @	*****
No 2.	18.75 @	*****
No 8	17.75 @	
Others	17.00 @	19.00
Cold-blast Charcoal Car-Wheel	\$8.00 @	29.00
Warm-Blast	24.00 @	27.00
Forge, for Range Stonecoal, Coke	-	
and Charcoal	16.00 @	22.00
-		

LOUISVILLE.

GEO. H. HULL & Co., Commission Mer-chants, report to us as follows, under date of March 42, 1884: The market continues quiet, and recent sales show a slight decline in price on some grades. Some furnaces, being largely sold ahead, are firm in price; Galvanized Iron.—Not much can be said others are accepting concessions, and most of the market. The demand is rather

۲.	POURDRY INOR.		
	No. 1 Hanging Rock Charcoal	\$22.00 @	
)	No. 1 Southern Charcoal No. 1 Hanging Rock Stonecoal and	21.00 @	224,0
,	Coke	19.50 @	20,5
,	No. 1 Southern Stonecoal and Coke	18.50 (19.00
,	No. 2 Southern Stonecoal and Coke.	17.50	18.00
9	"American Scotch"	17.00 @	18.00
П	Open Silver Gray	16.50 @	17.50
J	Clone Silver Gray	16.00 @	17.00
	MILL IBONS.		
1	No. 1 Charcoal	18.00 @	19.0V
	No. 1 Stonecoal and Coke, Neutral.	16.50 @	17.00
Н	No. 2 44 44 44	15.75	16.50
1	No. 1 " Cold-short	15.75 @	16.20
1	No. 2 4 4 4	15.50 @	16.00
.1	White and Mottled, Cold-short and	Love S.	
1	Neutral	14.50 @	15.00
1	CAR WHEEL IRONS.		
4	Hanging Rock, Cold-blast	\$8.00 @	30.00
1	Warm-blast	22.50 @	***
1	Alabama and Georgia, Warm and		
J	Cold-blast	28.00 @	26,50
1	Central Kentucky, Cold-blast	24.00 @	25,50
- 2		-	

W. B. BELKMAP & Co., of Louisville, report to us as follows, under date of March 22, 1884: Bar Iron—Is moving in somewhat better quantity, but there is no upward tendency in price. Sheet Iron.—There is a good deal more inquiry but prices are still very low. The manufacturers declare that

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MEDINA, OHIO, Feb. 1, 1884. Millers Falls Co., 74 Chambers St., New York: GENTLEMEN—Please send me is more of your new Hack Saws like the sample sent a few days ago. It cuts truly wonderfully. Our machinist sawed off a round bar of steel, 1% inches in diameter, in about three minutes. Just as soon as he cut it off he handed over the money for the saw, declaring it was his property.

Respectfully,
A. I. ROOT, Publisher of "Gleanings in Bee Culture."

KANSAS CITY, Mo., Jan. 30, 1884. Millers Falls Co., New York City, N. Y.;

Inclosed please find \$3 for two of your Star Hack Saws and two dozen saw bisdes for same. The two sets were received to-day which were ordered last week, and their performance is so satisfactory that two of my friends asked me to send for sets for them.

Very respectfully,

R. H. BACOT.

Moss Point, Miss., Jan 10, 1884. Millers Falls Co., 94 Chambers St., New York :

GENTLEMEN—Please find inclosed \$3.05. for which please send two dozen "Star Hack Sawa" (\$2.4c), and one extra dozen \$-inch saws (\$5 cents), as per your price list. The Hack Saw you sent me a few days ago is THE thing. The two dozen more ordered are for mechanics in my immediate neighborhood. You may expect further orders soon.

L. M. HAND. Manufacturer of Steam Engines, Gang and Cir-cular Saw Mills, Brass and Iron Castings, Forgings, &c.

YANKTON, Dak., Jan. 15, 1884 Millers Falls Co., 74 Chambers St., New York: GENTLEMEN—Send me one Star Hack Saw as good as you lately sent Mr. E. C. Johnson, my tenant. Find enclosed \$1.50.

A. W. BARBER.

We have sold many thousands of these Star Hack Saws, and, so far as we have heard, every one of them has given satisfaction. Hardware Dealers in all places will promote their own and the interests of their customers by keeping these goods in stock. There is a fair profit on them and not a bit of risk, as we will take back at any time all the saws which you wish to return, and pay freight both ways. Send for Price List.

MILLERS FALLS CO.,

74 Chambers Street, - NEW YORK.



VISE AND TOOL CO., Limited,



Bonney's Pat. Vises,

Machinists' Tools and Hardware Specialties.

OFFICE AND WORKS

As an evidence of the popularity of Bonney's Patent Vises, we have sold over 300,000 of them within the past four years, and the demand is still increasing. W. HASTINGS.

SEIDEL, HASTINGS &

WILMINGTON, DELAWARE,

BEST CHARCOAL

MANUFACTURERS OF

AND PLATE IRON GENERALLY.

We ask the special attention of the trade to our C. H. No. l Boiler Plates, which we manufacture expressly for the Shells of Steam Boilers and stamp 50,000 pounds T. S. when desired. One hundred and sixteen tests of this iron, made during the last three years by the U. S. Inspectors of Steam Vessels, show an average tensile strength of 58,808 pounds to the sectional square inch, and an average reduction of area of the fractured ection of 30% per centum. Our prices are as low as the production of a good article will admit of



CHENEY & SON,

MANLIUS, N. Y.
MANUPACTURERS OF LIGHT AND MEDIUM WEIGHT

GRAY IRON CASTINGS. METAL PATTERN MAKERS AND JAPANNERS.



ALL KINDS OF RIVETS. Plainville, Conn. CLARK & COWLES,

A. E. DEITZ.



DURRIE & McCARTY, Agents,

97 Chambers & 81 Reade Sts., New York.



CAST BRASS HARDWARE

ICE HOUSES AND REFRIGERATORS. Manufactured and kept in stock by

W. & J. TIEBOUT,

Manufacturers of BRASS, GALVANIZED & SHIP CHANDLERY

HARDWARE, Nos. 16 & 18 Chambers St.,

NEW YORK. 3015 CHESTNUT ST., PHILADELPHIA, PA. NEW YORK STANDARD SCALE CO.,



EVERY DESCRIPTION OF

PLATES, First-Class Weighing Machines.

Our line of COUNTER SCALES for fine workmanship and accuracy is unequaled.

FACTORY: KINGSTON, N. Y. OFFICE AND SALESROOM, 46 MURRAY ST. NEW YORK. T. W. WILLIAMS, Agent. Send for Descriptive Catalogue.



ALWAYS GIVES THE UTMOST SATISFACTION

Main Belting Co., Manufacturers of THE LEVIATHAN COTTON BELTING

Unsurpassed for Strength, Durability and Cheapness. Made to any Length, Width and Strength Main Driving Belts. Guaranteed to Russ Straight, Even Through

No Cross Joints, Unaffected by Damp. Clings well to the Pulley, Has no equal. In fact, is THE BELT.

MAIN BELTING COMPANY,

W. cor. Ninth and Reed Sis., Philadolphia. Also 48 East Randolph St.

CHICAGO.

723 PARK ROW. N.Y.

L. COES'

Genuine and Mechanics,

PATENT

Screw Wrenches

L. COES & CO.,

Worcester, Mass.

ESTABLISHED IN 1839.

Our Genuine Wrenches are made with straight bars, full width and eularged jaw, having ribs cast inside, which strengthen the jaw and give a tull bearing on front of bar. These improvements, in combination with our new ferrule, made with double bearings, an iron tube, fitted to the shank and resting against the lower bearings, rigidly held in position by the handle and nut, effectually preventing back thrust of ferrule (see sectional view), verify our claim that we manufacture the heaviest and strongest Wrench in the market. None genuine unless stamped

L. COES & CO.,

Worcester, Mass. Warehouse.

97 Chambers and 81 Reade Str., NEW YORK.

DURRIE & McCARTY, Sole Agents. 1884.



LLOYD & SUPPLEE HARDWARE CO., Phila- WM. FRANKFURTH & CO., Milwaukee, Wis. WALTER S. LUDLOW, Cincinnati, Ohio.

and pronounced

DURRIE & McCARTY, New York, AMES PLOW CO., Boston, Mass. PRATT & CO., Buffalo, N. Y. SIMMONS HARDWARE CO., St. Louis, Mo. HAMILTON & MATTHEWS Rochester, N. Y. MARKLEY, ALLING & CO., Chicago, Ill. HUNTINGTON, HOPKINS & CO., Sacramento

LLOYD & CLARKE, La Crosse, Wis. H. MITHOFF & CO., Columbus, Ohio. BURROUGH BROS., Kanss City, Mo. THE TODD-DONIGAN IRON CO., Louisviile, Ky. LAYMAN, CAREY & CO., Indianapolis, Ind A. E. BONESTEEL, Troy, N Y. PERRIN BROS., Lafayette, Ind.

and San Francisco, Cal.

R. A. CULTER & CO., Peoria, Ill.

DUCHARME, FLETCHER & CO., Detroit, Mich.

LOCKWOOD, TAYLOR & CO., Cleveland, Ohio.

PERRIN BROS., Latayette, Ind.

KRUSE & BAHLMANN, Cincinnati, Ohio.

JANNEY, BROOKS & CO., Minneapolis, Minr.

LOGAN, GREGG & CO., Pittsburgh, Pa.

E. WHITMAN, SONG & CO., Baltimore, Md.

SHULTZ & HOSEA, St. Joseph, Mo.

PURE TURKISH

WALPOLE EMERY MILLS,

South Walpole, Mass.

NIMICK & BRITTAN MFG. CO., PITTSBURGH, PA.,

Embracing Door Locks, Latches, Knobs, Butts, Sash Locks, &c.

IMPROVED ROSE ESCUTCHEON KNOBS, In GENUINE BRONZE & IMITATION BRONZE.

> PADLOCKS. TEA, COUNTER, UNION AND PLATFORM SCALES

Catalogues and Lists furnished on application



SCYTHE

Grain Cradles.

IOWA, U. S. A

In the "Peerless" Grass Snath we present a simple and successful device for adjusting the hang of a Scythe in, or out, from the smallest to the greatest degree. The Eye-Bolt having a Large Bearing Surface, grips the swinging plate and

olds it Firmly where placed. On advanced orders we can furnish the "Peerless" Snaths to fit either extra long or extra short Scythe Heels, a matter of importance when Scythe makers have no uniform standard length for their scythe heels.

The demand for Fencing is enormous, and has led to an advance of both Plain and Barbed. Such goods as accompany the erection of fences are lively, as Post-Hole Dig-gers, Stretchers, Staples, &c.

ST. LOUIS.

HOFFER & Co., Pig Iron and Iron Ore Merchants, 214 Pine street, report to us as follows, under date of March 22, 1884: Consumers report that orders in their line are coming in in larger volume than heretofore. This, of course, means an increase of consumption of Pig Iron. Pig Iron is, however, in such liberal supply that we have as yet no change to report in prices. We quote:

Missour				R10 50 va 90 50
				20.00 @ 22.00
)hio	 			94.00 @ 96.00
	COAL	AND	COKE IRONS.	
Missouri	 			19.50 @ 20.50
Southern.	 			18.50 @ 19.50
				21.00 @ 25.00
		MILL	IRONB.	
Red-short	 			18.50 @ 19.50
				17.00 @ 18.00

CAR WHEEL AND MALLEABLE IRONS.

19.50 @ 21.00 25.00 @ 28.00 28.00 @ 32.00

EVERETT & Post, 421 North Third street, St. March 22, 1884: Pig Lead.—The transac-tions for the week have been confined to the immediate wants of the consumers; still, there is a strong undertone to the market : there is a strong undertone to the market; no lots are pressing for buyers, and no stocks of consequence are held here. Advices from the West continue to indicate a large decrease in the output, not as a result of the winter months, but an actual decrease where work could be carried on. This decrease will serve to largely reduce the surplus stock with which the year opened, and keep a more steady market. Sales during the week have been at \$3.85 @ \$3.87½ for Common, and \$3.90 @ \$3.95 for Refined, and these figures represent the market to-day.

BALTIMORE.

R. C. HOFFMAN & Co., Pig and Railroad Iron Merchants, No. 21 South Frederick street, write as follows, under date of March 1884: We have no change to report in Iron market here, sales still being confined to immediate requirements, and no dis-position to cut prices shown by manufacturers. We quote :

Our English Letter.

(From Our Regular Correspondent.) LONDON, ENG., March 10, 1884.

THE WEEK has brought about no new developments of any real importance. Trade and commerce languish, and there is no appearance of buoyancy nor any reliable symptom of a coming change for the better. The Board of Trade returns, of which I furnish some leading details lower down, appear to de-monstrate that the volume of our export trade is not greatly decreasing, but values are lessened to a degree which is most trying, and it appears to be beyond question that every branch of business is suffering most severely from the prolonged paralysis of the home market. Agriculture is almost prostrate, thousands of acres in different parts of the country being tenantless and practically out of cultivation. Such a state of affairs must and does seriously affect the manufacturing industries, and the worst of it is that a long time must elapse before any improvement can be manifested. It is just possible that the advent of spring, and its finer weather, may do something to give trade a start, yet I must confess that I see no prospect of a real upward movement so long as the farmers are in their present pov-

erty-stricken condition. THE FAIR TRADERS

manufacturers, merchants, &c. Let-f apology and sympathy were read from noblemen and other persons unable to be present—some of them clearly showing that the writers are disposed to sit on the fence at present. The annual report of the committee stated that operations had been carried on quietly, steadily, and, it was hoped, effectually. The action of the union in advocating freeing all corn-growing lands from taxation "had met with general ac-ceptance." The proceedings at the conference were interesting to American readers, and it appeared that the present depression of all branches of business had had a tend-ency to make many doubters of the freerade theory. In the evening the Earl of Dunraven delivered a speech, as also did Mr. Ecroyd, M. P. for Preston, in support of fair-trade principles. But for the extreme pressure on my space to-day I would have given your readers a larger account of the proceedings. Perhaps I may be enabled to proceedings. lo so next week.

THE SCOTCH G. M. B. PIG IRON

question has progressed since my last, and has now entered into a stage which may or may not prove to be final. I have been favored with a copy of the official report and of the Ironmasters' Committee, which tell the history of the inquiry so fully and completely that I will merely give it as it stands. I do so in the belief that the subject is of real and great importance to the trade in the United States, especially when one at Glasgow, and the preponderating influence hitherto exercised by the iron quotations emanating from that center over the different markets of the whole world in re-

spect of iron. The report of the committee and copies of correspondence are given below:

REPORT BY COMMITTEE APPOINTED AT A MEETING OF IRONMASTERS, HELD

FEBRUARY 20, 1884.

I. In terms of the remit made to your ommittee to investigate into the allegation, "That large quantities of pig iron in the manufacture of which a considerable proportion of cinder has been used have recently and are still being sent into Connal's store as a substitute for Scotch G M. B.," your committee, in the first instance, diversely their contents of the content of rected their solicitors to correspond with Messrs. Connal & Co., in order to ascertain whether they were in a position to state that e allegation was not correct, and, if not, hether they would be prepared to confer ith the ironmasters as to the adoption of rangements to obtain accurate information the subject. A copy of the correspond-ice, which speaks for itself, is appended reto. The committee regret that Messrs. onnal & Co. should, in the circumstances, we thought it expedient to decline to-give ssistance in this matter. 2. Your committee have instituted in

2. Your committee have instituted in-quiries in various quarters with regard to the subject matter of the remit. They felt, however, that with the view of obtaining reliable information on which to base their report, they should invite explanations from the ironmasters concerned, and they there-fore instructed their solicitors to write to each of the ironmasters of Scotland an each of the ironmasters of Scotland an identical letter on the subject. To that letter replies were received from the large majority of the ironmasters, intimating in substance that the interests of their respective firms are not affected by the subject matter of the inquiry, while from other firms no reply has been received.

3. As the inquiries of your committee have thus been conducted without assistance from certain of the ironmasters, and without the co-operation of Messrs. Connal & Co., and as the Caledonian and North British Railway companies declined to give information on the subject, the result has not been so comthe subject, the result has not been so complete as your committee would have desired. Their investigations, however, leave no doubt on the mind of your committee that in certain of the furnaces in Scotland, representing about one-sixth of the whole production, a large proportion of cinder, varying from 25 to 45 per cent. of the furnace charge, was used during 1883 in the manufacture of pig iron classed as G. M. B., and that a considerable quantity of the iron so manufactured has been sent into Connal's store. Your committee have reason to store. Your committee have reason to believe that the use of cinder in such large quantities extends further back than last year, but to what extent iron so made forms the present stock in Connal's store your com-mittee have not been able definitely to as-certain, as the parties who alone could assist them in obtaining this information decline to

4. Under these circumstances, it appears to your committee that the question remitted to them can only be authoritatively decided by an action at law.

Glasgow, March 5, 1884.

The following is a copy of the correspondence referred to in the foregoing report: 172 St. Vincent street, Glasgow, 30th February, 1884.

Messrs. Connal & Co., 104 West George street, Glasgow.—Dean Sirs: At a meeting of ironmasters held here this day, we were instructed, in view of the articles which have recently appeared in the Times and other public prints, on the subject of the alleged introduction into your store as "G. M. B." of pig iron in the manufacture of which a considerable proportion of cinder has been used, to inquire whether you are in a position to state, of your own knowledge. a position to state, of your own knowledge, that such is not the case, or, if not, whether you will be prepared to confer with the iron masters as to the adoption of arrangement which may enable them to obtain accurate information upon a question so vital to the

interests of all parties concerned.

We are, &c.,

(Signed) M'Grigor, Donald & Co. 104 WEST GEORGE STREET, ASGOW, 21st February, 1884.

Messrs. M'Grigor, Donald & Co., 172 St. Vincent street—Dean Sirs: In reply to yours of yesterday, we beg to state for the infor-mation of the ironmasters that we have no held a great conference of their union at knowledge as to what materials they charge Birmingham on Wednesday, March 5, and, it must be confessed, made a respectable iron; nor did we ever suppose it was part of showing for their anti-free-trade doctrines.

Among those present were sundry local and this. We have two head warehouse-keepers of great experience in the handling of pig iron, whose daily duty it is to examine the iron going into store, and satisfy themselves that it is of fair average quality and number, according to the brand stamped on it. do not see how we can assist the ironmasters in their inquiry. The ultimate fixing as to whether iron is "G. M. B.," in our opinion, rests with the consumers. We are, &c., CONNAL & CO.

(Signed)

Messrs. Connal & Co., 104 West George street—Dear Sins: We are favored with your letter of this date. We notice that, while you state that you have no knowledge of what materials are used in the production of what materials are used in the production of the pig iron stored with yeu, you consider it to be the duty of your storekeepers to sat-isfy themselves as to the fair average quality and number, according to the brands stamped

upon it, of iron entering your store.
You state that the question whether the iron lodged in your store is "G. M. B." or not rests with the consumers. This might be true were it the fact that any considerable quantity of the identical iron put into store, say during the last 12 months, had been taken out again for consumption; but the information of the ironmasters is to the opposite effect. If this information be corbe, as alloged, largely composed of cinder, is it not the case that the holders of your warrants are seriously prejudiced by receiving from you warrants for an article which ultimately the purchasers may decline to accept?

accept ! Under these circumstances it seems mat

way to assist the ironmasters in expiscating

the actual state of matters.

We must reserve the right of publishing this correspondence, and are, &c.,
(Signed) M'GRIGOR, DONALD & Co.

45 West George Street, LASGOW, 22d February, 1884.

Messrs. M'Grigor, Donald, & Co., Writers. DEAR SIRS: Messrs. Connal & Co. have DEAR SIRS: consulted us on the subject of your letter to them of yesterday. In our opinion they have, in their letter of the 21st, said all that they could possibly say on the subject. The parties for whom you act, being, as we understand, a section of the ironmasters, appear to misapprehend Messrs. Connal's position. As storekeepers and depositaries of iron the property of third parties, they would not be justified without the consent of the owners in giving access to the iron belonging to them.

Yours, &c, (Signed) Moncrieff, Barr, Paterson & Co.

177 St. Vincent Street, Glasgow, February 25, 1884.

Messrs. Moncrieff, Barr, Paterson & Co., Writers.—Dean Sins: We were duly fa-vored with your letter of the 22d. The parties for whom we act are the ironmasters of the west of Scotland, with the exception of one firm, which has for many years held itself aloof from the association. Do the objections stated by you apply to Messrs. Connal & Co. furnishing us, for the use of our clients, with a note of the exact quantities of the various brands stored with them during the last 12 months, and of the exact ing the last 12 months, and of the exact quantities of the identical iron of these brands so stored sent out of store during that period, and, if not, will you kindly procure us this information? Yours, &c.,
(Signed) M'GRIGOR, DONALD & Co.

45 West George Street, LASGOW, February 26, 1884.

Messrs. M'Grigor, Donald & Co., Writers.—
Dear Sirs: We are favored with yours of yesterday, and in reply we think that our clients' objections equally apply to furnishing the statements now asked; but it occurs to us to suggest that, as you act for the ironmasters of the west of Scotland, with the exception of one firm, your clients have the means themselves, without much difficulty, of obtaining from individual makers a note of the exact quantities of the various brands sent into store. Yours, &c.,
(Signed) Moncrieff, Barr, Paterson & Co.

The ironmasters held a further meeting on Friday, March 7, of which I have the sub-

joined official report:

"A report from the committee appointed on 20th February last was submitted, con-sidered and approved of, and the com-mittee discharged. The meeting expressed mittee discharged. The meeting expressed regret that in a question of such vital importance to the trade the co-operation of certain of the ironmasters of the west of Scotland, and of Messrs. Connal & Co., should have been withheld. The meeting was unanimously of opinion that iron in the manufacture of which the quantities of oin-der referred to in the report had been used ought not to be classed as Scotch 'G. M. B.,' and that a fresh classification of the brands of Scotch iron appeared to be necessary. of Scotch iron appeared to be necessary.
Until this can be effected, investors in warrants have the remedy in their own hands, by specifying the particular brands they desire to purchase."

I believe you will be the only paper to give

the correspondence, &c., as above, in its entirety, most, or possibly all, of the British journals fearing the incidence of the farreaching law of libel here. It would be an immense gain to all concerned if the names of the firms whose iron is said to be so largely composed of cinder could be openly published, but I scarcely suppose that course is at all likely to be taken. Private conversation gives all the requisite particulars, but it would be a very different thing, in the eyes of the law, to publish the names. It is a pity that Messrs. Connal & Co. could not, or would not, assist the committee, but it is to be presumed that they did not do so in order to work in the same groove as the Pig Iron Trade Association, with which body the official storekeepers are necessarily so closely connected. It now remains, as the committee state, for an action at law to be raised, but that method of deciding the question would be so expensive that it will not be lightly undertaken. In many quarters it is held that the quantity of the crude iron in store is very large, while others state that it allegations the public must be quite at sea. Anyway, public confidence in warrants as securities will be shaken, and the brokers will in time find out that their procedure in the matter has been unwise. Up to date the Pig Iron Trade Association has not replied to the report of the ironmasters, and the only rejoinder which has transpired is the following, which deserves perusal

1 DIXON STREET, GLASGOW, March 7, 1884. Sin: As one of the largest makers of pig iron in Scotland, and one whose iron has been stored during 1883, I think the time has come to express my opinion on the ques-tion of quality, which has been raised by a section of the ironmasters of this country. I think a great deal that has been discussed and written on the subject has really little to do with what is wanted, which is that the public should have confidence that the iron put into store is good and genuine G. M. B., and will be accepted as such by the consumers and the exporters of this country. Whether the pig iron has been made with a certain proportion of cinder, or whether it has been made with a class of ironstone which contains a large proportion of phosphorus and silicon, is, I think, beside the question. What is wanted is that the result should be good G. M. B. In making hematite pig iron, in which I have a large experience, there is a fixed limit of phosphorus and silicon which the iron contracted for is not allowed to pass. If it contains more it is rejected. Why not apply this test to the iron to be stored in Messrs. Connal's, and let them

T. MANN THOMSON, Chairman of Wm. Dixon, Limited.

THE IBON MARKET is still extremely dull in almost all depart-

ments, and there are no signs of any early improvement. Speculative business is conspicuously absent, and there are few new undertakings in progress which are likely to require large supplies of iron or steel. Money is in plentiful supply, but legitimate openings for its profitable employment are unprecedently scarce; consequently, it is either yielding extremely low rates of in-terest in banks or is used to the disadvantage of manufacturing industries in which there is already a productive power in excess of the consumptive requirements of the markets. At Glasgow the iron market has been without other than very ordinary features, warrants having been free from fluctures. tuations and closing at 42/7½ \$\mathbb{\text{f}}\$ ton. Scotch makers' brands are about as last week, on the whole, but in two or three instances they are a shade cheaper. The restricted production continues, without any formal or ganization, and must be lessening the make by about 3,000 tons weekly as compared with the corresponding period of last year. The statistical position is worse, nevertheless, inasmuch as the reserve stocks are now over 2,000 tons heavier than they were a year ago. At Middlesboro' a rather better tone prevails, consequent upon the restricted make and the fact that stocks increased to a less extent during February than had been anticipated. Prices have not moved, however, No. 3 being held at 36/9 @ 37/3, makers' figures being highest. The make of pig iron in the Cleveland district last month was less by 8000 tons than in Jan-uary, and the shipments were over 7000 tons more (and 16,000 tons heavier than in February, 1883), yet stocks increased by 10,600. Since the end of February 15 furnaces have been blown out in pursuance of the restriction policy, so that the current make is largely reduced. In hematite pig iron there is scarcely any movement, the demand being below the average and prices unaltered on the basis of 46/6 @ 47/ for mixed lots in usual proportions. Elsewhere all sorts of crude iron are very quiet and slow of sale in the open markets. Heavy manufactured iron is dull, and few of the firms engaged in those departments have more than a moderate amount of work in hand. For shipbuilding iron the demand is poor and prices are much cut. Ordinary finished iron is irregu-lar in point of values, although nominal quolar in point of values, although nominal quo-tations have been unaltered for many months past, on the basis of £7. 10/ for marked bars. Medium and ordinary bars are obtained at all sorts of prices down to £5. 2/6 for common Welsh. Sheets are quiet, and there is nothing more than a very ordinary turnover in hoops. Fencing wire and galvanized iron are dull and depressed all pound. Vary little is the Fencing wire and galvanized iron are dull and depressed all round. Very little is being done in iron rails or old rails, while heavy wrought scrap iron is in but limited request at about 50/\$\text{P}\$ ton, net cash, f.o.b. London, &c. Steel is very quiet in fall departments, the only houses which are at all well employed being those producing special steel forgings or castings. Bessemer rolled sorts are weak, but in tolerable request. Cropends are reported steady at 48/\$\text{Q}\$ 50/\$, f.o.b. Wales, &c. Old railway leaf-spring steel is quiet at 68/\$\text{Q}\$ 70/\$, c.i.f. United States ports, Steel rails are not very much sought after, and ordinary flange sections of 50 fb \$\text{P}\$ yard and over are held at \$\pm\$4. 17/\$\text{P}\$ ton. The demand for light sections up to 40 fb \$\text{P}\$ yard is good and well maintained at late quotations. late quotations. SCOTCH PIG IRON

is fairly steady, but is without special changes. There are now 97 furnaces at work in Scotland, as against 113 a year ago. In Connal's stores there are 593,669 tons (an increase on the week of 427 tons), against 590,085 tons a year ago. Shipments are currently poor, and are 11,691 tons behind last year to date, while Middlesboro' imports into Scotland to date show an increase of 10,123 tons. Writing from Glasgow on March 7, James Watson & Co. said: "In the early part of this week the Scotch iron market was flat and lifeless, the price of warrants drooping from 42/3½ to 42/1 🕏 ton. On Wednesday, however, some good buying set in, and since then the market has advanced at that figure. Shipments are reported to be larger this week than last; at the same time the demand is not improving." The shipthe demand is not improving." The ship-ments last week were 7,974 tons, as com-pared with 10,217 tons for the corresponding

					No. 1.	No. 8.
G. M. B., at	Glango	W		 	44/	41/6
Clyde,	6.6		0.0		48/	45/6
Coltness,	6-6			 	57/6	51/
Langloan.	64				54/6	51/
Jartsherrie,	8.6			 	58/	50/6
Summerlee.	18.			 	5/8/	48/6
Calder.	6.6				58/6	48/
Carnbroe,	4.6				52/6	48/8
Hengarnock,	at Ar	drossa	m	 	52/	46/
Eglinton.		0.0			46/	48/
Dalmellington		6.6			49/6	45/6
hotts, at Leit					58/6	59/
Cinneil, at Bo'					46/	45/
'arron, at Gra	NDZ900	outh.			48/6	52/ 45/ 47/L

is steady at about late rates, but no great amount of new business is being done. The wages dispute is settled by the prolongation of the sliding-scale arrangement. Current rates for G. M. B. pig iron, net cash, are:

WEST COAST HEMATITE PIGS are nominally unchanged at quotations, but there are reports of augmented buying on Continental account, with several inquiries

from your market.	Prices are		
	No. 1.	No. 2.	No. 8.
Cleator	49/8	49/	48/6
Lonsdale		47/6	47/
Workington		47/	46/6
Lowther		47/	46/6
Distington		47/	46/6
Harrington		47/6	47/
Solway		47/	46/6
Maryport	47/6.	47/	46/6

The Connellsville Coke and Iron Comp inf.—A large mortgage given by the Connellsville Coke and Iron Company to the Fidelity Insurance, Trust and Safe Deposit Company, of Philadelphia, was entered in the office of the Recorder of Deeds for Fayette County, Pa., on the 19th inst. The mortgage is for \$1,000,000, to secure bonds issued by the first-named company. It

covers the coal lands and coke works of the Connellsville Coke and Iron Company, embracing 8000 acres of coal land and 600 coke ovens. The works are at Leisenring and West Leisenring. At the former there are 400 coke ovens in operation, and at the latter, which is where the late explosion occurred, there are now 200 ovens fired and 200 new ones under construction. The Connellsville Coke and Iron Company have been satisfying all the mortgages against them as they be-came due, and there now stands against them but \$200,000 purchase money, which amount is to be set aside out of the \$1,000,000 borrowed to satisfy these mortgages

The Colorado Coal and Iron Company.

An animated contest is in progress for the control of the Colorado Coal and Iron Com pany. The friends of President W. J. Palmer have been working hard for proxies to be used at the annual election on April 7, but at a meeting of stockholders held in this city on the 20th inst. General Palmer announced his withdrawal from the race. All the stockholders had been invited, and there was a very large attendance, Mr. Lovejoy, the recent successor of General Palmer as president of the Denver and Rio Grande Company, being among those present. It was a protracted and excited meeting. Mr. Louis H. Meyer, an intimate friend of General Palmer, presided. The General opened by alluding to the reports afloat criticising his administration, and proceeding to reply to them. He called attention to a printed letter circulated in the room. It was from Hon. A. S. Hewitt to General Palmer, and expressed the hope that harmony might prevail, and that the services of Mr. Danforth, general manager of the Coal and Iron Company's works, would in any event be retained. General Palmer said he had induced Mr. Hewitt to take \$100,000 in Coal and Iron Company's bonds, and had asked him to become a director. He asked a hearing for Mr. R. W. Raymond, who, while not a stockholder, represented Mr. Hewitt, and who had been familiar with the coal and iron business all his life.

Mr. W. L. Scott stated that when he was

induced to become a director of the Denver and Rio Grande Railroad he owned only 100 and Rio Grande Kailroad he owned only 100 shares. On entering the board and examining the finances of the company he found an alarming condition of affairs. The code of by-laws was a disgrace to any railroad in the world. The president had power to personally go out and borrow all the money he wanted in the name of the company. There had not presidently been a meeting of direct. wanted in the name of the company. There had not practically been a meeting of directors for three years. General Palmer was drawing a salary of \$42,500 a year, and was president of the Coal and Iron Company, the Mexican National Railroad and other corporations, whereas the president of the great Pennsylvania Railroad receives but \$25,000, and gives all all his time to that corporation.
All other officers of the Denver were drawing salaries larger than were paid by any other

company in the country.

Mr. Curtis, of the firm of Coleman & Benedict, offered resolutions providing for the appointment of a committee of the three largest stockholders, exclusive of all officials or directors of the company, to examine into all the company's affairs. The question was called for on these resolutions, but the chair did not put it.

Half a dozen persons tried to talk at once, and numerous amendments and resolutions were offered. It was not clear what was were offered. It was not clear what was being done until the chair announced that the following resolution had been adopted by a vots of 29 to 26 on a count of hands upraised: Resolved, That a committee of five stockholders, consisting of Charles Moran, Louis H. Meyer, Isidore Wormser, R. E. Leland and Spencer, Trask, be appointed, whose duty it shall be to make present investigation as they shall find necessary into the existing controversy between the comthe existing controversy between the com-panies, to enable them to ascertain its merits, and to select a ticket to be voted for at the ensuing election. As soon as the result of the vote was announced the meeting was declared adjourned.

The American Shipbuilding Company's Affairs.

Upon application of R. C. Dale and Samuel ickson, Judge Mitchell, of Philadelphia, appointed a receiver on the 22d inst. to take charge of the affairs of the American Ship charge of the affairs of the American Ship-building Company. The appointment was the result of a bill in equity filed by the Bank of New York, to which the Ship-building Company were indebted in the sum of \$15,000, and it was for the protection of the creditors of the company that the pro-ceeding was taken. Judge Mitchell apcointed Commander Gorringe as the receiver, and, as the company are doing a prosperous ess, the suspension, it is expected, will e only temporary.

In an interview with the reporter of a

contemporary, Mr. Gorringe said: "This suit in Philadelphia is an effort to protect the creditors and patrons of the company. It would be suicidal for the stockholders or creditors to stop the work of the company or annul their charter. Since I was appointed receiver on Saturday I have received telegrams from five of the largest creditors of the company, and also from one of the r patrons for whom we are building the largest of our vessels, approving my receivership. We have nine vessels on the stocks which the court has ordered me to finish. Eight of them will be completed by the middle of August and the ninth some time in September. As to the taking of contracts for other new vessels, the court will decide that mat-ter later. So far as I can see, the assets of the company are abundant to pay every dol-lar of their indebtedness if we are only given time, and there will not, in my opinion, be the slightest difficulty in raising all the capital we may need after we have completed the vessels now in course of construction. The company are at present engaged in liquidating their indebtedness, and will continue to do so as fast as possible. I propose to reduce expenses as far as practicable, though, of course, there will be some added account. there will be some added expense because of the restrictions under which we will be com-pelled to work. We look upon the move-ment to annul our charter as an attempt to It worry us.

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LEAI
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Bar.
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WHOLESALE METAL PRICES, March 26, 1884.

METALS.

|HON。--DUTY: Bars, 8-10¢ to 11-10¢ 署 恵; provided that no Bar iron shall pay a less rate of duty than 35%. Sheet, 11-0¢ to 15-10¢ 署 恵, Band, Hooj and Scroll, 1¢ to 14-10¢ 署 恵, Railroad Bars weighing more than 25 恵 男 yard, 7-10¢ で 1¢ 署 恵.

ing more than 20 B @ yaru, 1-1	
American Ir	on.
Foundry No. 1	ton \$20.50 @ 21.00
Foundry No. 2	TOD 18.00 (0) 20.00
Gray Forge	ton 18.00 @ 18.50
Scotch Iron	1.
Carnbroe	ton 22.00 @ 22.50
Coltness	ton 22.50 @ 23.00
Shotts	ton (a) 25,00
Glengarnock	ton 22.00 @ 22.50
Gartsherrie	ton 21.75 @ 23.00
Langloan	ton 22.25 @ 22.00
Summerlee	ton (2 21.70
Dalmellington	ton @ 20.75
Eglinton	ton (0) 20,20
Clyde	ton @ 20.50
Rails.	
Steel, at Eastern milis	ton @ 34.00
Old Rails, Ts	ton 20.00 @ 21.00
Scrap.	
Wrought, # ton, from yard	22.00 @ 23.00
Bar Iron from S	tore,

I to 0 in.x9a to 1 in
Refined Iron:
34 to 2 in. round and square 10 10 2.15 (2.30)
1 to 6 in. x % to 1 in
1 to 6 in.x14 and 5-10 1 to 2.85 @ 2.50¢
Rodg-16 and 11-16 round and sq., w 10 3.30 to 2.40
Bands-I to 6x8-16 to No. 12
"Burden's Best" Iron, base price 10 10 8.10
Burden a Best Tron, base price
Burden's "H. B. & S." Iron, base price, B To 2.70
Norway Nail Rods
Sheet Iron.
Common R. G.
American. American.
Nos. 10 to 16
17 to 90 2 to 8.95 @ 4 6

Common	R. G.
American, A	merican.
Nos. 10 to 16	4 0
17 to 20	4 6
21 to 24 W to 3.25 @ 8 3734#	4340
25 and 26 10 10 8.50 @ 3.62140	4360
27 10 8.75 @	
28	4340
B. B. &	d qual.
Galvanized, 10 to 20 10 to 6140	5340
Galvanized, 21 to 24 If ID 644	534¢
Galvanized, 25 to 26 W 10 7349	6344
Galvanized, 27 D To 794¢	6940
Galvanized 28	7340
American Russia 1014 B,	9140
Russia W m 120	0 140
American Cold Rolled B. B 19 15 5160 @	3 7e

American Cast Steel.

English St	eel.
Regt Cast	
Perton Cost	W W 10366
(Spoular Saw Plates	
Round Machinery, Cast	
Swaged, Cast	
Rest Double Shear	W ID 1050F
Blister, 1st quality	
German Steel, Best	
2d quality	
3d quality	B B S F
Sheet Cast Steel, 1st quality	p 10 1554¢
2d quality	
3d quality TIN.—Dury: Plates, Sheets,	Townson and Towns
TIN.—DUTY: Plates, Speets,	Tagger and Terne,
1¢ W fb : Bars, Block and Piz	30 % @ 911/de
BancaStraits	5 % 90 (A 91 e
English	20 % @ 91 e
Enghan	20 % (0.30) e
Bar Charcoal Tin	Plates.
Charcoat Ain	E. Impous
I C 10x14 { 225 sheets	9 box \$5.75 @ \$6.50
I C 20x28, 112 "	·· 12.00 @ 18.50
I X 10x14 / 205 (1)	
I W 10×19 (995 "	·· 7.95 @ 8.00

I X 10x14 995	44	46	7.95 @	8,00
I X 12x12 (I X 14x20, 112	66		7.25 @	8.00
D C 1244x17, 100	44	*** 44	5.50 @	5.75
D X 1236x17, 100 For each addition	onal Y add		7.00 @	7.50
	oke Tin			11.50
•	one 2	Best.	Ord	inary.
I C 10x14		\$5,50	\$5.00 @	\$5.25
I C 14x20 j		5.6216	5.25 @	5.8734
I C 10x20, gutter	rs, 225 shee	ta8.25		7.75

7.78
10.75
Coke.
5 \$5 @
10.00.0
10.00 @

Tin Boiler Plates			
IXX 14x26, 2 sheets for No. 7, 112 she IXX 14x28, 2 " No. 8, " IXX 14x31, 2 " No. 9,	ets	666	\$18.50 14.50 16.00
COPPER.—DUTY: Pig, Bar and Copper, \$6 \(\otimes \) 5. Manufactured articles of which Copper is a comp value), \$5 \(x \) and valorem.	(incluonent	of	g all chief
Ingot, Lake	15140	0	16 #
Ingot, Baltimore	14160	0	1434e
Braziers' Copper, ordinary sizes,		-	00 4
16 oz. 2 sq. ft. and over "	*** *	1	23 ¢
Braziers Copper, ordinary sizes, under 16 oz. and over 12 oz. W		_	

16 oz. # sq. ft. and over	5.6	***	. 20	28	
Braziers' Copper, ordinary sizes,			. 6	-	7
under 16 oz. and over 12 oz. W			-		
mq. ft	66		. @	25	*
Braziers' Copper, 10 oz. and 12	**		-	no	
og. W sq. ft	**	****	. 6	28	- 5
Lighter than 10 oz. P sq. ft	**	****	00	96	2
Circles less than 84 in. in diam	4.6		6	90	2
Segment and Pattern Sheets	44	*****	60	96	2
Locomotive Fire-Box Sheets	6.6	****	a	94	2
Sheathing Copper, over 13 oz.			100		T
sq. ft	1.6		0	21	
Bolt Copper	4.5		0	24	0
Copper Bottoms, 14x48	8.6	0.0 "			0
Tinned Sheathing, 14x25, 14, 16,					
18 OE	66		3	24	9
Tinned Sheathing, Planished, 14	0.0		-	-	
x48, 14, 16 oz	0.0			34	F
Tinned Sheathing, Planished for	4.0		-	94	4
boilers, 7, 8. 9 oz	60			34	7
Nickel-Plated Sheathing for hollers	40		2	98	7
	65	25 €			2
Plating extra Flat Copper Boiler Bottoms or Pit		- +	w	400	*
Bottoms, cut to special sizes	6.6		6	24	

Tinning.

O'Neill's Patent Planished Copper. Net.

14.48

12 and 16 oz. and heavier. 35¢ By the case. § B 34¢

18 oz. and lighter. 88¢ " 37¢

B i. e. Sizes.

7 in., 14x32. 8 in., 14x56. 9 in., 14x60.

14 and 16 oz. and heavier. 37¢ By the case. § B 36¢

(And all sizes not over 20 in. wide.)

14 and 16 oz. and heavier. 9 B 39¢

18 oz. 43¢

Copper Wire (See Wire.)	U
Sheathing Metal.	C
Yellow Sheathing Metal, W D	2
BRASS AND GERMAN SILVER.	20
Brown & Sharpe's Gauge the Standard for Metal; Old English Gauge the Standard for Wire.	
Brass Manufacturers' Price List, January 17.	Lesc
1884	M
American 434 @ 4144	0
Bar 5¢ Pipe 65¢¢, din 20 s Tin Lined Pipe 15¢, dia 20 s	福田石田
Shot Dean 6144 : Buck 7144	HH
Chilled Shot	BK.

NICKEL Metallic, in grains 100 lb tots 83¢ @ 85 Metallic, in grains, \$\vec{1}\$ 100 lb tots 83¢ @ 85 Metallic Anodes \$1.36 @ 1.4
Nickel-Plating Materials.
Composition, Cutting # 15 \$0.00

y	Nickel-Plating Materia	la.	
y p	Composition, Cutting	50 Th.	\$0.0
	Composition, Cutting in bbls	66	.0
	Composition, Emery Cake.	66	.0
0	Composition, White Tripoli	44	.16
ö	Sulphate and Ammonia		.40
ő	Nickel, Chloride.	6.6	1.00
4,	Nickel, Chieride and Ammonia	0.6	.68
	Acid, Muriatic, 20°	6.6	.0
0	Acid, Nitrie, 88°	6.5	.16
0	Acid, Sulphuric, 66°	6.6	.0
0	Rouge, hard and soft, for Nickel	6.6	.26
0	Ammonia Water, 26° U.S. P.	2.2	.14
0	Potassa Caustic, pure white	0.0	.60
0	ANTIMONY.		
5	Hallett's	11 @	111/10
5	Cookson	12 @	12140
5	SPELTER-Duty : Pigs, Bars and P. 100 lbs.	lates,	\$1.50
	American, cagh 4		
0	ZINC-Duty: Pig or Block, \$1.50 The Sheet, 2160 Ph.	100	lbs.

Wrought, \$\psi\$ ton, from yard 22.00 @ 23.00	600 m casks. 51/6 0 51/4 12 m. Zinc.—Open 6 0 61/4 2 m. Zinc Tubing dis. 10 0 20
Common Ivon	Zine Tubing-Dis. 25 %.
M to 1 m. round and address B B S @ S.10¢	Plain .27 Fancy .83 Scotch and Extra Patterns .35
% to 2 in. round and square 10 10 2.15 @ 2.30¢	N. P. U.
1 to 6 in.x 1/4 and 5-10	A, 98¢; B, 92¢; C, 14¢. WIRE.

Nos. 00 to 9,	10, 11,	12,	18, 14,	15, 16,	17,	18.
10	11	1116	1256	14	15	16
Bright Mark	et Wire.			dis 6236	@ 65	9
" Chare	coal			dis 4736	@ 50	9
" Bale	Wire, No	18. 7 to	12	dis 5736	@ 60	- 5
Annealed Ma	rket Wir	θ)		-	
" Fence	Wire, N	os. 8 a	nd 9. >d	tia. 60	@ 65	- 5
" Grape	Wire, N	os. 10	to 14		-	
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" Besser Coppered Ma	mer Stee	Wire		lis, 55 lis, 55	@ 60 @ 573	6 5

	ito	ne	or	W	eav	ing	W	Ire.	
Nos			18			21	90	28 24	25 26
Cents	14	15	16	19	20	21	22	28 24	25 26
Nos	27	28	29	30	81			84 85	36 .
Cents	98	29	30	88		85	37	40 45	55
Nos. 16 to	18.						dis.	60 @	65 1
19 to	26.						66	6216 @	
27 to	0.0						44		70 9

rs, Sheets, &c., valval.; valued above p b; valued above p b; valued above.—Steel Bars, Rods,		Wire,	Wire	0 @ 20.
shed, in any way in ng, 11/10 P B in addi- Saw Plates, 10 P B		Common High Brass	Low Brass	Gilding Bronze and Copper
burgh quotations, eel. 9 b 154¢	All Nos. to No. 16, inclusive	.94	\$0.26 .27 .28 .29	\$0,36 .81 .83 .84

1	No.	17 and 18	.28 .27	.2
ı	66	19 and 20	.94 .384	. 5
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	6.6	87	1.00 1.04	1.7
	6.6	88	1.30 1.34	2.0
ĺ	64	89	2.00 2.00	8.2
ĺ	44	40	2.60 2.60	5.7

***************************************	100,000	17. 8.48
Spring Wire, 2 cents per poun	d advance.	Whit-
ened Wire, 8 cents per pound adv	ance. Flat,	Square
and Half-Round Wire, 4 cents a	advance on	Round
Wire. Fancy Wire, not less than 1	10 cents adv	ance on
Round Wire. Spooling on one	-pound 8p	ools, 12
cents per pound extra. Spool	ing on ten	-pound
Spools or more 2 cents per poun	d extra.	
SETECUTE E A WINGERS STEELS	-	

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Iron and In bulk, Copper l	new	list,	Dec	. 10,	1881			d	is. 45	8
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Prices current per box of 50 feet.

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	Si	ze	16.		_			_		ist.	2d.	8d .	4th
to	10	x	15		. ,					\$18.50	\$11.50	\$10.75	\$10.
to	16	ĸ	24		. ,					14.50	18.50	12.50	11.5
to	20	x	80							18.50	17.00	15.50	14.6
to	24	x	30							20.50	18.50	16.25	
	24									22.00	20.00	17.50	
	26									24.00	22,00	18,50	
	30									26,00	24.00	20.50	
	80									27.00	25.00	21.50	

0 x 56 to 84 x 56	81.00	29.00	26.00	il .
Do	able.			
Sizes.	1st.	9d.	8d.	4th.
x 8 to 10 x 15	\$17.50	\$15.00	\$14.00	\$13.0
x 14 to 16 x 94	20.00	18.00	16,50	-
x 22 to 20 x 30				
x 85 to 94 x 80				
3 x 28 to 24 x 35				
x 86 to 26 x 44			24.00	
x 46 to 30 x 50			27.00	
x 52 to 80 x 54		82.00	28.00	
	92.00	94.00	90.00	

40.00 87.00 83.00 43.00 40.00 87.00 Sizes above—\$15 per box extra for every 5 inches.
An additional 10 per cent. will be charged for all Glass more than 40 inches wide. All sizes above 52 inches in length, and not making more than 81 united inches, will be charged in the united 84 inches bracket. Discount, 70 and 10.

PAPER STOCK, &c. (Dealers' Selling Prices.) Cents # 19

White Shirt Cuttings, No. 1	7 6 750	1
Mill Assorted Whites	534 6 536	1
Unbleached Muslins	614 6 64	1
City Whites, No. 1	672 B 475	ı
New Seconds, light	354 @ 354	1
dark	25 9 3.	ı
No. 2 Whites	70 2 70	П
Inen Canvas No. 1	26 94	Г
leconds, City No. 1	136 @ 134	ı
leconds, City No. s	1 66 134	ı
lantia Rope	296 @ 396	ı
" Tarred	256 68 256	L
Sunny Bagging No. 1	10 m	1
Centucky Bazging	4 6	ı
turisp Hagging No. 1	256 @ 256	
ar Shakings	14	1
lard White Shavings, No. 1	38(6 4	
oft White Shevings, No. 1	116 @ 316	ı

White	Shavings, Shavings,	No. 2, 80	čt	 	286	0	-
Mixed	Shavings,	part Wh	lite	 	212		9
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Book	Stock, No. 1	i, light		 	8	ā	1
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Bogus	Manilas ar	id Hard	WATON	 	- 62	4	1
						<u>a</u>	71
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10	" Ivory Drop, fair	a :
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20	Blue Prussian fointe best	by 1
14	Blue, Prussian, fair to best 40 in oil. 45	8 1
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60	Chinese dry	
	" Ultramarine	di .
	Brown Spanish	
60	Brown Spanish	I.
10	Van Dyke 10 (a 1
10	Green Chrome	(4)
KO.	In oil va @ v8	2
10	Parisgood, 20; best	
	st fam off	10 1
ie	in oilgood, 300; bes	in i
14	Iron Paint Bright red	1
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	" Ground in oil Bright Red "	6
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17	Brown	4
U	Purple	30

LORS SO	Purple
- Car	Mineral Paints
	Orongo Mineral
27	Orange Mineral
	ned Lead, American
83	Red Lead, American. Venetian (Eng.) dry
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Ib 7360	Rose Pink Sienna, American Raw, powdered
TO 1 NATA	sienna, American Raw, powdered
	Burnt powdered
	in oil10
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16.	Raw
	Umber, Burnt, powdered
17, 18.	
cette com	" Raw, powdered
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B 60 %	White Lead, American, pure dry
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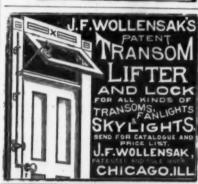
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	Sundries,
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	Litharge. Mineral Wool, ordinary, per lb
	powdered4
	Pitch
	Putty, in bladders
l	Rosin-Common and Good-Strained
	E & F

· Comple	
*****	INTERCHANGEABLE LOCK-COPNER SHELF BOXES. Screw Cases, &c., FOR THE HARDWARE TRADE.

19 Murray St.,





Trade Everywhere. OTIS A. SMITH, Manufacturer. Rockfall. Ct. CHAMPION





HERMANN BOKER & CO.,

PROPRIETORS OF



- VISE & TOOL WORKS.

PICKS, MATTOCKS, GRUB HOES, HAMMERS.



Sole Agents for

H. BOKER & CO.'S Celebrated "Tree" Brand Cutlery, WARD & PAYNE'S Sheep Shears (see their large advertisement in this issue, GARDNER'S 1881 Razors, AND

R. HEINISCH'S SONS'

Celebrated Tailors' Shears, Trimmers, Scissors, &c., Japanned and Nickel-Plated. Every pair warranted.

GEO. WOSTENHOLM & SON'S, WADE & BUTCHER'S Pocket Cutlery and Razors. JNO. WILSON'S Butcher Knives, Steels and Shoe Knives.

NEW ENGLAND CUTLERY CO.'S Table Cutlery. W. BUTCHER'S Files and Tools,

GUNS AND PISTOLS, ARMS AND AMMUNITION.

MERWIN, HULBERT & CO.'S

AUTOMATIC

Double - Action Revolvers.

Turning the Barrel on the Center Stem and drawing it forward ejects

38 and 44 Calibre. Both Pocket and Belt



MANUFACTURERS ALSO OF THE LINE OF REVOLVERS KNOWN AS

Tramp Terrors, Rangers, Dictators, Blue Jackets X L REVOLVERS.

SOLE AGENTS AMERICAN METALLIC CARTRIDGE CO.

Catalogues and Price Lists sent to any Dealer upon Application. Address

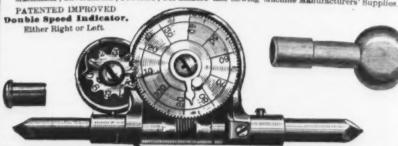
MERWIN, HULBERT & CO.,

83 Chambers Street, New York.

Stubs' Files, Tools and Steel, Grobet Swiss Files, CHESTERMAN'S MEASURES,

Hubert's French Emery Paper, Horseshoe Magnets, &c. WM. SMITH & SON'S CELEBRATED MUSIC WIRE, Nos. 2 to 30. French Sheet Steel, 3 1-4 in. wide, from 4 to 65 thousandths.

Machinists', Silversmiths', Jewelers', Die Sinkers' and Sewing Machine Manufacturers' Supplies PATENTED IMPROVED



BEO. W. MONTGOMERY.

105 Fulton St., NEW YORK.

ALEXANDER PHILADELPHIA.

Elizabethport Steam Cordage Co., MANUFACTURERS OF MANILA, BISAL AND TARRED

CORDAGE OF ALL KINDS.

BINDER TWINE A SPECIALTY. 46 South Street, New York.

Wholesale Hardware Prices, March 26, 1884.

HARDWARE.	_
A nviis	126
Augers and Bits, Conn. Valley Mfg. Co O E. Jennings & Co Humphreysville Mfg. Co Ives. New Haven Copper Co Seecher (French, Swift & Co Griswold. Nobles Mfg. Co	
Bnell Mfg Douglass Mfg. Co. Extra Cook's Douglass Mfg. Co	
timutour Jennings Bits (old list)	MERKER R
Hollow Augers, Prenen	HENEMAKE
Lewis Fatent Single Twist. kussell Jennings' Augers and Bits of all kinds, List of January 1, 1881. of January 1, 1881. of January 1, 1882. of January 1, 1882. of January 1, 1883. olis 5 (old list). olis 5 (old list). olis 6 (old list). olis 6 (old list). olis 6 (old list). olis 6 (old list). olis 1882. olis 1882. olis 1882. olis 1882. olis 1882. olis 26 (old list). olis 27 (old list). olis 27 (old list). olis 27 (old list). olis 27 (old list). olis 28 (old list).	MNN. NNNNN
Patent Sewing, Short. \$1.00 \(\psi\) dos.—dis 40&10 \\ Patent Sewing, Long. \$1.20 \(\psi\) dos.—uis 40&10 \\ Patent Pez, Plain Top. \$10.00 \(\psi\) gross—dis 40&10 \\ \psi\)	鬼性鬼
Patent Peg, Leather Top \$12.00 \(\tilde{\pi} \) gross—dis 40& to Awis. Brad Sets. \$4.00. Awis. Sewling, Common \(\tilde{\pi} \) gross \$1,70—dis 25& to Awis. Sewling, Common \(\tilde{\pi} \) gross \$2,45—dis 25& to Awis. Sewling, Common \(\tilde{\pi} \) gross \$2,45—dis 25& to Awis. Shouldered Brad \(\tilde{\pi} \) gross \$2,00 dis 25& to Awis. Handled Brad \(\tilde{\pi} \), 50 \(\tilde{\pi} \) gross = dis 25& to Awis. Handled Scratch \(\tilde{\pi} \), 50 \(\tilde{\pi} \) gross = dis 25& to Awis. Handled Scratch \(\tilde{\pi} \), 50 \(\tilde{\pi} \) gross = dis 25& to Awis. Handled Scratch \(\tilde{\pi} \), 50 \(\tilde{\pi} \) gross = dis 25& to Awis. Hondled Scratch \(\tilde{\pi} \) 40 \(\tilde{\pi} \) gross —dis 25& to \(\tilde{\pi} \) Millers Falls Adj. Tool Hdles. \(\tilde{\pi} \) 40 \(\tilde{\pi} \) 25& co dis 25& to \(\tilde{\pi} \) Brad Sets, 80, 24, 81, co (0.4, 3, 81.2, 50 (1.61 \) 76.74 \(\tilde{\pi} \) Brad Sets, Stanley's Excelsior, No. 1, \$5, 60. \(\tilde{\pi} \) dis 25& to \(\tilde{\pi} \) 3 \(\tilde{\pi} \) Axes. —Best grades.	
Brad Sets. Stanley's Excelsior, No. 4,84 50.) 4 xes.—Best grades. Regular. Bronzed	5 40000
Frazer's, in bulk Keg # B, 5c ; Pail, # B 6c net	
Taker's, in boxes	-
Hand, Globe (Cone's Patent)	
Frager's, in boxes Axtee.—Standard list. dis 45% Axtee.—Standard list. dis 45% Balances. Belis.—Standard list. dis 45% Belis.—Standard list. dis 25% Belis.—Standard list. Belis.—Belis.—Belis. Belis.—Belis.—Belis.—Belis. Belis.—Belis.—Belis.—Belis. Belis.—Belis.—Belis. B	
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Heuch Stops. Heuch Stops. Hotchkiss's	
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Cast Iron Barrel. Square, &c	N OF SECTION S. P.
I res Patent De Or Bons	-
C. B. & Co. dis. Scattog Schurch Carriage and Tire, Philadelphia new list. dis 2000 S Carriage and Tire, Philadelphia new list. dis 2000 S Carriage and Tire, Philadelphia Pasters. dis 2005 S R. b. & W. Carriage (old list). dis 20 S Tire, Am. Screw Co.'s, Phila, new list. July 2 1852. dis 55 Tire, Par State." new list, July 2, 1852. dis 55 Tire, B. B. & W. y-5 and § Philadelphia list of S Tire, B. B. & W. y-5 and § Philadelphia list of S 84040-American Screw Co.'s Flat bend dis 55 Store-American Screw Co.'s Round Hend. dis 55 Store-American Screw Co.'s Round Hend. dis 55	Chris care me
Stove, R. & E. Mfg. Codia 5756460 \$	E A SAILS
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Brackets,—Sheif, plain, dis sok Sheir, fancy dis ook Reading, Plain dis sok ck Reading, Rosette dis 60 & y& Bright Wire Goods. List of June 15, 78, dis 70 & 10 &	10 %
Bright Wire Goods. List of June 25, %3. dis 70&10& Bull Rings. Union Nut Co. dis Bargery's. dis 60%2. Hull Rings. Hot'hits' low list. dis 60%2. Hot'hits' low & W Co's. Hot'hits' low & W Co's. Hot'hits' low & W Co's. Hot'hits' low list. dis 60%2. Hot'hits' low list. dis 60%2. Loue Joint, Japanned with acorns. dis 60%2. Loue Joint, Japanned with acorns. dis 60%2. Loue Fin, Acorns, Japanned. dis 60%2. Loue Fin, Acorns, Japanned. dis 60%2. Loue Fin, Acorns, Japanned. dis 60%2. Hot'hits' low list. dis 60%2. Hot'hits' low list. dis 60%2. Hot'hits' low list. dis 60%2. Hot'hits' list. dis 60%2. Hot list. dis 60%2. Hot'hits' list. dis 60%2. Hot'hits	55 % 10 % 15 %
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Fast Joint, Broad. dis ackrock Loose Joint, Japanned with acorns. dis fook	10 %
Bayer's Hinges	10 %
Loose Pin, Acorns, Japanned. Loose Pin, Acorns, Japanned. Loose Pin, Acorns, Japanned. Past Joint Narrow. dis 60&2 Past Joint Narrow. dis 60&2 Past Joint Le. Narrow. dis 60&2 Fast Joint, Le. Narrow. dis 60&2 Fast Joint, Broad. dis 60&2 Loose Joint, Broad. dis 60&2 Inside Blind, Light. dis 60&2 Inside Blind, Light. dis 60&2 Inside Blind, Light. dis 60&2 Broased Wrought Butts. Spring Hinges: dis 60&2 Loose Jn, Wrt. dis 60&2 Spring Hinges: dis 60&2 Loose Jn, Wrt.	**********
Bronned Wrongal Butis. dis soc Spring Hinges Geer's Spring Honges Lécer's Spring and Blank Buttsdis a Sabin Mg. Co.'s Bouble Actingdis a Union Spiral Spring, Japanned .dis a Union Spring Hinge Co.'s .dis a	0 % 15 % 15 % 15 % 15 % 15 % 15 % 15 % 1
American Spring Hinge Co.'s	0%
Empire dis of dis 7 Acme dis 7 Climax dis 60t; Silnd Butts Parker dis 50t; Silnd Butts Palmer dis 50t; Silnd Butts Seymour dis 50t;	00000000000000000000000000000000000000
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Sind Butts, Sargest's, No. 12 dis 705tr Ilind Butts, Reading's Gravity Sind Butts, Shepard's "Noiseless," Nos. 90, 60, 63, 45, and 54, and 55, and 56,	× ×
hepard's Lull & Porter Shutter Hinges dis 70% to hepard's Reversible Shutter Hinges dis 70% to lark's Improved Shutter Hinge, Nos. c, 1, 15, 2, 25, 5 dis 50% to lark's Improved Shutter Hinge, Nos. c, 1, 15, 2, 25, 5 dis 50% to lark's Cleavers, tumason & Beckley Mfg. Co dis 20 radies 70% to lark	3
Matcher's Gleavers	*
Vallers	5
uplex	MMMM
O. S. Iron Handle. \$\psi\$ gross \$\bar{a}\$ or dis government. The property of t	% B
WOTHER FREET # gross, No. 1. \$12.00; No. 2, \$24.00 No. 3, \$30.00 dis 50 & 10 niversal \$0 as \$3.00, dis 35 & 5 omestic \$0 dos \$2.50, dis 45	4 1
hambion. \$\psi\$ dos \$1.00, dis \$0\$ (aps - Percussion, \$\psi\$ 1000, ticks \$\epsilon\$ Goldmark's \$1000, \$100 \$100 \$100 \$100 \$100 \$100 \$1	N N 013
Doubse waterproof, 1-10's	or elba se
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Carpet Streichers. B Coz \$1.00 dls 50 sat Iron, Steel Pointis. B Coz \$2.00 dls 50 sat Iron, Steel Pointis. B doz \$2.00 dls 50 sat Iron, Steel Pointis. B doz \$2.00 dls 50 sat Iron, Steel Pointis. Carpet Sweepers. seell No. 5. par doz \$1.70	NAME OF
Carpet Sweepers Gls 24	BOWNING MEMBER
sep Socket. dis contact Charles Charle	MANICADEO ADGO
ace, 016-10-2 Ppair 79c)	81
ace, 7-0-3.	P
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See Framing and Firmer Buck Bros 118 271/6 8 See Framing and Firmer, Douglass this 6-6k locking fixed Framing and Firmer, Borrill dis 6-6k locking fixed Framing and Firmer, Merrill dis 6-6k locking fixed Firmers, Butcher's 6-6k footback fixed Firmers, Butcher's 6-6k footback fixed Firmers, Buck Bros (Shank) 5-18 footback fixed Firmers, Buck Bros (Shank) 5-18 footback fixed Firmers Buck Bros (Shank) 5-18 footback fixed f	Ti Fi
Jiamps. dis 38 5 m. Adjustable, Gray's dis 38 5 m. Adjustable, Gray's dis 30 5 m. Adjustable, Lambert's dis 30 5 m. Adjustable, Lambert's dis 30 5 m. Adjustable, Hammer's dis 30 5 m. Adjustable, Hammer's dis 20 5 m. Adjustable, Hammer's dis 20 5 m. Adjustable, Hammer's dis 20 5 m. Cabinet, Bargent's dis 20 6 10 5 m. Cabinet, Bargent's dis 65 8 10 6 10 m. Cabinet, Bargent's dis 65 8 10 6 10 m. Eberhard Mfg. Co dis 30 6 5 8 w Clamps See Vises	0000
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U	r Wholesale Metal Prices, See Pag	re :
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MXX X	Crow Bars. — Cast Steel. ₩ b Iron, Steel Points. ₩ b 4 Curry Combs.	*
X K K	Silvered Glass	et
-	Am. Miller Bro.'s Cutlery Co. dis 2: Humason & Beckley, Pocket dis 334 Vaugatock Cutlery Co. list n	S et
	White Ename! Cutlery, Meriden Cutlery Co. (Table). Am. Miller Bro.'s Cutlery Co. Alis 28 Humason & Beckley, Pocket. Humason & Beckley, Pocket. Asron Parkinshaw? Dividers. Be Compass Deg Cellars.—Embossed Gilt. dis 26 Brass. dis 48 Brass.	98
	Brass dis 48 Door *Springs* Forrey's Rod, regular size, \$\pi\$ dos., \$\pi_3\$dis so Gray's Rod	% T
	Ree Rodper gross, \$30,00, dis 20 Warner's No. 1, per dox, \$1.50 No 2, per dox. \$2 no Gem (Coll): No. 1, Large Japanned	ot :
-	Gem (Coil): No. 1, Large Japanned \$\psi\$ dos \$\psi_{2.00}\$ No. 2. Medium, Japanned \$\psi\$ dos \$\psi_{2.00}\$ No. 2. Medium, Japanned \$\psi\$ dos \$\psi_{2.00}\$ Star (Coil)—For Cop'd, Mickel-Flated &c., see list. No. 4; Snos Fy') Sercen door size, \$\psi\$ dos \$\psi_{2.00}\$ No. 5, Sercen Door size \$\psi\$ dos \$\psi_{2.00}\$ No. 6, Medium \$\psi\$ dos \$\psi_{2.00}\$ No. 7, Large	1
-	No. 5, Screen Door size. \$\Phi\$ dos 2.00 \\ No. 6, Medium. \$\Phi\$ dos 2.75 \\ No. 7, Large. \$\Phi\$ dos 4.00 \\ sabin's Lever. No. 1, \$\Phi\$1; 2, \$\Phi\$1; 50; 3, \$\Phi\$2; 4, \$\Phi\$2.50. dis 35	2 2
-	Sabin's Boss. No. 1, # Gos. #1.co; 2 #2.75; 3, #2.dis 33/5 Sabin's 'rown	MAN AN
	Rubber, complete.	T JEEA
	Merrill	****
	Witherby Tool Co. dis 70 Douglass dis 70 Orills and Drill Stocks.	N COM
	Douglass. dis 20 Orlins nust Drill Stocks. Blacksmiths' Self-Feeding each, \$7.50, dis 20 Breast, Blacksmiths' Self-Feeding each, \$1.50, dis 20 Breast, Blacksmiths' Self-Feeding each, \$1.50, dis 20 Breast, Blacksmiths' each, \$1.50, dis 20 Breast, Millers Falls each, \$1.50, dis 20 Breast, Millers Falls each, \$1.50, dis 20 Breast Bartholome's each,	N I
	Breast, Willors Fallseach, \$2.50, dis 25, Breast Bartholomew's .each, \$2.50, dis 25, 52, 61, 61, 61, 61, 61, 61, 61, 61, 61, 61	S H
1	Ratchet, Whitney's dis 20-20-20 Ratchet, Weston's dis 20-20-20 Ratchet, Moore's Triple Action dis 20-25 Whitney's Hand Dell Plant & Comment of the 20-25 Ratchet, Moore's Triple Action dis 20-25 Ratchet, Moore's Ratchet	H
	\$12.00 dis action Wilson's Drill Stocks dis 10 Automatic Boring Tools each, \$2,25, dis 20	X X
	Morse's Adjustableeach \$8,00, dis 20 Morse's Adjustableeach, \$7.00, dis 20	6
	Danbury each, \$8.00, dis 30; Lag Beaters. Morroe's flower dis to National February and Cloth see Sand Paper.	C
	Standard.	81
	Mill E. Buckets, light, 35 to 10 in. (Duc's Improved). Fro. 315.00 & \$54.00	
	Storehouse (Duc's Patent). 12 to 17, \$12 @ \$20dis 105 Emery.—Regular numbers. # 2 5 Flour and F. F. # 3 6/4	C
ı	Enameled and Tinned Wass	- P
	Rettles	A
	Wood	WH
		Gi Gi
	Anchor Lock	Ga Ga Ra
-	Metallic Key, Leather Lined dis 65 Cork Lined dis 75 I. Sommer's Best Block Tin Key dis 76 I. Sommer's Cork Lined, 1st quality dis 96 Self-Measuring, Enterprise P dox 35,0.0, dis 26,105 Self-Measuring, Lane s P dox 35,0.0, dis 26,105 Self-Measuring, Line s P dox 35,0.0, dis 26,105 Self-Measuring, Lore P dox 35,0.0, dis 26,105 Self-Measuring, Victor P dox 35,0.0, dis 26,105 Felice Pintes Pap, 10, dis 10, 5 Files. Pap, 10, dis 10, 5 I & Riley Carr new list April 1, '83, dis 15 I & Riley Carr Horse Rasps	Ro Ro Pl
	Felice Pintes	Sc H
-	& Riley Carr Horse Rasps Gis 108	Sc.
-	Union File Co	80 Ph Sec Ha
-	Fiuting Machines. (April 10 to 10 t	Ma Gr
COMM	CAOX, 4% Inch Rolls	Bh
MEGO	American, 5-in., \$1; 6-in., \$3.40; 7-in., \$4.50 each, dis 35, \$2.50 conestic Fluter. \$1.50 each, net eneru Hand Fluter, White Metal. \$4.50 each, net grown Hand Fluter, Nos. \$4.50 each, and \$4.50 each, net eneru Hand Fluter, Nos. \$4.50 each, net eneru ene	Co Co Be Be
02 00 00	¥ dos	Cle Cle Cel Ha
COE	Clark's Hand Fluterper goz \$15.00, dis 33½ \$ combined Figure and Sad Iron	Cor Oor W1
F	Fig Traps.—Paragon	Pic E Tas Wr
H B	Fruit and Jelly Fresson. interprise Hig. Co	Wi Gri Wi Ho
	dos	Ho
MACA	Acme "Clauges dis sours \$\) \[\text{T Amress} \text{ dis 55&10 S} in S for S	Cli. Cli. Ess Pu
 D	44 mlets.—Nail and Spike, dis 502 10 g Eureka " Gimiets	No Glo
DDD	ouble Cut, Hartweli's	Che Ner Bri Sar
TEF	Giuse Peta, inned and Knameled dls 3483485 5 amily, how's "Kureka" dls 3483485 5 amily, how's "Kureka" dls 4e 5 Grindstone Fixtures dls 4e 5 Grindstone Fixtures	R. L. Wa
SiR	eading Hardware Co	Mu Du Te
00000	M. C. B. E. 9810. 2.30 M. C. B. E. 788. 2.50 M. C. P. E. 1 up. 3-10 M. C. P. E. 1 up. 3-10 M. C. P. E. 1 up. 3-10	Nat Nov Wh
UEE	. M. C. P. E., 788	Wo Iron Ioe Ice
GO	I Oriffin's Hack Saws, complete	Ice Con Ice Tor
CMM	A	Safe Arc
CHHK	hency's, new list. March. 1889	K Bra
C.HVM	10's	Am
MAN	eison Tool Works	Mos Hay Tab
PIPI	Hammond & Son dis 40 stress dis 10 stress di	Bas Her Doo
	over's Handles.—Door or Thumb Latches. Nos	Doo Pur Pur
Bi	ronne Iron Drop Latebes	Pic

	Brackets,-Shelf, plain	dis solt 10 %	Crow Bars.—Cast Steel	Wrought Chestdis 70 9 Surface Chest	Ladies. Meiting, Sargent's
	Brackets,—Shelf, platin. Shelf, fancy Reading, Platin Reading, Rosette	dia 55&5&10 %	Curry Combs. Fitch's, dis 50&10 \$	Surface Chest dis cocitos Flush Chest. dis cocitos Flush Chest. dis 70 s Lifting. dis 60 s Lifting. di	Melting, Reading. dis 30&10 9 Melting, Monroe's Patent. W dos \$4.00 dis 40 5 Melting, P. S. & W. dis 30&10 5 Melting, P. S. & W. dis 30&10 5
	Bright Wire Goods.	Ha roktok — #	Hotchkiss, Novelty, new list, July, 1880dis 331/8 Hetchkiss, Excir. Supr. Champion	Boynton's Loop Saw Handles	Eberhard Mfg Co
118 20 % @ 11140 @ 9140	Bull Rings.	Alaced	Curry County. Titch's. Hotehkiss, Novelty, new list, July, 880. dis 334 5 Hotehkiss, Excir. Supr. Champion . dis 334 5 Rubber. \$\psi \text{dos \$10.00}\$ dos \$10.00 dis 25 5 Curtain Plus	Hammer and Hatched	La niverna. Tubular, Standard No. o per doz \$7.50 Tubular, Standard No. 1 per doz 9.60 Tubular, Lift Wire No. e per doz 9.60 Tubular, Lift Wire No. 1 per doz 10.50 Tubular, Lift Wire No. 1 per doz 10.50
10%0	Bull Rings. Union Nut Co. Sarenv's. Hot-hkris' tow list. Funnaon, Beckley & Co's. Park, Stow & W Co's. Butts,—Wrought Brass.	dia 66%&10 %	White Enamel net	Hickory Firmer Chisel, assorted, F gross . \$4.50	Tubular, Lift Wire No. e. per dez 9,00 Tubular, Lift Wire No. 1 per doz 10,50
	Humason, Beckiey & Co 's	dls 70 %	White Enamel White Enamel Curlery - Meriden Cutlery Co. (Table). net Am. Miller Bro.'s Cutlery Co. dis 25 Gumason & Beckley, Pocket dis 33/5 Vaugatuck Cutlery Co. list net Aaron Warkinshaw's Pocket	Apple Firmer Chisel, assorted, # gross 5.00 Apple Firmer Chisel, large, # gross 6.00	Guards for Tubularsadd per dos .25 Nail CityNo. 1 # dos \$10; No. 2, \$2, net
lis so %	Butte, Wrought Brassd	18 75 @ 75&5 ¶	Vaugatuck Cutlery Colist net	Socket Firmer Chisel, assorted, # gross 3.00 dis	Meteor
118 25 %	Butts - Wrought Brass	dis 20&10 %	Dividers	Auger, assorted, w gross	Guarda for Tubuiars and per dos 18.30 Guarda for Tubuiars No. 1 # dos \$10; No. 2, \$5, not Meteor. No. 1, # dos, \$0, 50; No. 2, \$5, op. net Hurricane, No. 2. # dos \$1.75, dis 105:10 \$ Peerless, No. 5. # dos \$1.75, dis 105:10 \$ Brady's Patent. dis 106:10 \$ Brady's Patent.
	Fast Joint, Narrow	18 40&10&10 %	Leather		
	Loose Joint. Loose Joint, Japanned Loose Joint, Japanned with Acorns. Parliament Butts.	dis fodero \$	Deer Springs.	Patent Auger, Pouglass # set \$1.0 not Patent Auger, Swan s. # set \$1.0 not Patent Auger, Swan s. # set \$1.0 not Hangers.—Barn Door, old patterns dis occio \$Barn Door, New England # set \$1.0 set \$1.0 not Patent Augers.—Barn Door, old patterns dis occio \$1.0 not Patent Swan Barn Door, New England # set \$1.0 not Patent Swan Barn Door, New England # set \$1.0 not Patent Swan Barn Boor, New England	De Beque
6o %	Loose Joint, Japanned with Acorns Parliament Butts	dis 60&10 %	forrey's Rod, regular size, \$\pi\$ dos., \$\pi_3dis \$0.50 Gray's Rodper gross, \$20.00, dis 20.50	Hangers.—Barn Door, old patternsdis bokto a Barn Door, New England	Lemon Squeezers. Porcelain Lined
			Ree Rod per gross, \$20,co, dis 20 % Warner's No. 1, per doz. \$1.50 No. 2, per doz. \$2 net Gem (Coll):	Zenith Anti-Priction Wood Track discret	Forcelain Lined
	Loose Pin, Acorns, Japanned. Loose Pin, Acorns, Japanned. Loose Pin, Acorns, Japanned. Plated Tips Wheught IRON.	Lorshod sib	No. 1, Large Japanned \$\psi \text{doz \$4.00}\) No. 2, Medium, Japanned \$\psi \text{doz \$2.75}\) No. 5, Small Large pand \$\psi \text{doz \$2.75}\)	Challenge. dis so \$ "Champion" Medina Mfg. Co. \$115, dis 50 \$ "Champion" Medina Mfg. Co. \$115, dis 50 \$10 \$ Sterling Improved (Anti Friction). dis 55, to \$ Victor, No. 1, \$15; No. 2, \$16.50; No. 3, \$18. dis 2, 266 \$ Charlenge.	Duniap's Improved
okto %	Fast Joint NarrowFast Joint, Lt. Narrow	dis 0000256 % [No. 3. Small, Japanned	Victor, No. 1, \$15; No. 2, \$16.50; No. 3, \$18dis. 24@5 Cheritree	Townsend's Patent \$6.00 \$\overline{\text{dos}}\ \ \delta \text{dos}\ \delta \
is 45 %	Fast Joint Broad	. (III S 00/02/256 % I	No.4 ("Shoo Fly") Screen door size, # dox \$1.50	Victor, No. 1, \$15, No. 2, \$10,50; No. 3, \$1.8, dis. 2 cgs x Cheritree. dis to \$5 Kidder's dis co\$ Kidder's dis co\$ 20 Kidder'	Townsend's Fatent
is 25 %	Loose Joint, Broad	dis 60&216 %	No. 6, Medium	The "Boss"	Lines.—Linen Fish
08:10 % is 40 %			sabin's Lever. No. 1, \$1; 2, \$1.50; 3, \$2; 4, \$2.50dis 35 5 Sabin's Boss. No. 1, \$2 dos. \$4.00; 3 \$2.75; 3, \$2.dis 32/5	CronkNo. 4, \$12; No. 5, \$14.40; No. 6, \$18; dis 50 % Architect. W set	Cotton Chalk Silver Lake, Braided, Nos. o. \$6.00; No. 1, \$6.50; No. 2, \$7.00; No. 3, \$7.50 W gross
18 25 % 5&10 %	Loose Pin, Wrt	dis fortale 4	No. 7, Large No. 1, \$2:2, \$1.50; \$4 dos \$2.75 No. 7, Large No. 1, \$2:2, \$1.50; \$4 dos \$2.75 anblin & Lever No. 1, \$4 dos \$1.50; \$8.75; \$, \$2.dis 30.5 \$ anblin & Boss. No. 1, \$4 dos. \$4.00; \$1.50; \$8.75; \$, \$2.dis 30.5 \$ Philadelphia \$4 dos. \$4.00; \$1.50; \$1.77; \$dis 51.5 \$ Cowell's No. 1, \$4 dos. \$4.00; \$0. 2, \$1.50; \$1.85; \$ Rubber, complete \$40s. \$40s. \$2.85; \$dis 50.5 \$ Rubber, complete \$40s. \$40s. \$2.85; \$dis 50.5 \$ Rubber, complete \$40s. \$40s. \$2.85; \$dis 50.5 \$ Rubber, complete \$40s.	Felix, W set 4.50; dis so %	8, \$7.00; No. 3, \$7.00 F gross
in 40 %	Geer's Spring and Blank Butts		Cowell'sNo. 1, \(\psi\) doz. \(\sizeta 18.00\); No. 2, \(\sizeta 15.00\), dis 50 % Rubber, complete\(\psi\) doz. \(\sizeta 22.5\), dis 20&10 %	Harness Snaps. Anchor (T. & S. Mfg. Co.)	Wire Clothes, Galvanizedesch 250@40c net
in 25 %	Sabin Mfg. Co.'s Double Acting	dis 35 %	Rubber, complete. \$\psi\$ dos. \$3.24, dis 20&105 Brawing Knives. dis 50	Judd's, list of 1½ changed to \$14.00	Lectures, and Latthees, Cabinet, Eagle
5&10 %	Union Spring Hinge Co.'s. American Spring Hinge Co.'s. Gem Spring Hinges. Barker's Double Acting	dis 25 %	Arlington Edge Tool Codis 70 % Crossman's No. 1	Hotchkiss'	Cabinet, P. & F. Corbin 1884, dis 45&2 % cash.
0&10 % 0&10 %	Gem Spring Hinges	dis 30 %	Merrill	Andrews*	Cabinat Stoddawt Look Ca
is 25 %	Union Mfg. Co	dis 25 %	Bradley's dis 35 % Adjustable Handle dis 20 %	German, Sargont's new list	A. E. Detts, Flat Key. dis 30540 5 Yale Lock Co. Flat Key. dis 40540 5 'Shepardson' or "U. S". dis 35 'Felter" or "American" dis 40540 5 Factor Factor S
15 40 %	Empire	24	Douglassdis 70 %	Covers. dla 50 g Covered Spring new list, Oct. 1883 dla 50 g Mencely's Pat. Safety (Old German list). dis 50 g Mencely's Imp. German (Old Jerman list). dis 60 to 8	"Felter" or "American" dis 35 % Eagle Trunk dis 1523 %
8 25 % 8 40 %	Climax	dis socio %	Orills and Drill Stocks. Blacksmiths'each, \$2.50, dis 20 %	Hatchete,	Branford
ls 60 %	Blind Butts, Palmer	dis 5082 %	Blacksmiths'	Salah Blood	Norwalk
is 90 %	Blind Butts, Luli & Porter	.dis 75&10 %	Breast, Hotenkiss dis 20 %	Lathing, Nos. 123	Norwich
#10 % 8 15 %	Blind Butts, Huffer	dia 75/k2 %	Breast Bartholomew's each, \$2.50, dis 25,250	Shingling, Nos. 1 2 3.	Nashua
m 15 %	Acme. Climax. Blind Butts Parker. Blind Butts, Palmer. Blind Butts, Seymour. Blind Butts, Seymour. Blind Butts, Lull & Porter. Blind Butts, Micholson. Blind Butts, Huffer. Blind Butts, Clark's, Nos. 1, 3, 5. Blind Butts, Manbattan Hardware Co. Blind Butts, Sargent's, Nos. 1, 5. Blind Butts, Sargent's, No. 1, 5. Blind Butts, Sargent's, No. 1, 5.	als 70 %	Ratchet, Ingersoll'sdis 25 h	Lathing, Nos. 123	Nimick & Brittan Hard- ware Mfg. Co
Atio 5	Blind Butts, Sargent's, No. 12. Blind Butts, Reading's Gravity. Blind Butts, Shepard's "Noiseless," Nos	dis 70&10 %	Ratchet, Weston'sdis 20 %	Hurd's. dis 3, 5 Shingling, Nos. 12 3. W doz \$3.00 \$8.50 \$9.00 Claw, Nos. 12 3. W doz a.00 a.50 10.00	Reading Hardware Co. (low list)
-net	Blind Butts, Shepard's "Noiseless," Nos	dis 70 %	Breast, Hotchkins' dis no s Breast, Milson's dis 1,5 Breast, Millers Falls each, \$3 co, dis 2,5 Breast Bartholomew's each, \$3 co, dis 2,5 Breast Bartholomew's each, \$2,50, dis 2,50,5 Batchet, Merrill's dis 2,5 Batchet, Mittney's dis 2,50,10 Batchet, Whitney's dis 2,5 Batchet, Weston's dis 2,5 Batchet, Moore's Tripic Action dis 2	Claw, Nos. 1 2 3 # dox 0.00 0.50 10.00 Lathing, Nos. 1 2 3 # dox 8.00 8.50 0.00 terkes & Plumb	whippie mrg. Co
# 01 Sh	45 and 5. Blind Butts, Shepard's "Gravity," Nos. Shepard's Luli & Porter Shutter Hinges Shepard's Beversible Shutter Wieses	.dis 70&10 %	Wilson's Drill Stocks	Shingling, Nos. 123	F. Many's "Extension Cylinder" \$10.50 \(\) dos net Barnes Mig. Co
&10 % &10 %	Shepard a Luli & Forter Shutter Hinges	.CLIS 7006 10 76	Morse's Beach Patent each \$8 on die so \$	Claw, Nos. 1 2 3 # dos 8,7 6 85,00 85,50 Claw, Nos. 1 2 5 # dos 8,27 6,27 Lathing, Nos. 1 2 4 # dos 7,75 8,00 8,40 Underhill Edge Tool Co	Flat Rey Latches
&10 %	Shepard's Reversible Shutter Hinges Clark's Improved Shutter Hinge, Nos. o	.dis 60k 10 %	Morse's Adjustable	Claw, Nos. 123	Mallory, Wheeler & Co. 1
£10 %	Butcher's Cleavers. Gumason & Beckley Mfg. Co	dis 25 \$	Egg Beaters.	Claw, Nos. 12 3 \$\footnote{\pi}\$ dos \$7.7\$ \$8.00 \$\footnote{\pi}\$.76 Claw, Nos. 12 3 \$\pi\$ dos \$7.7\$ \$8.00 \$\footnote{\pi}\$.76 \$1.2 \$1.2 \$\footnote{\pi}\$ dos \$7.70 \$8.25 \$9.0 \$1.2\$ \$1.2\$ \$1.3\$ \$1.3\$ \$1.3\$ \$1.3\$ \$1.4\$ \$1.3\$ \$1.4\$	Co
&10 %	Butcher's Cleavers. Gumason & Beckley Mfg. Co. Bradley's. Beatty s.	dis 3336 %	Monroe's dos. \$2.40 National dis 50 \$	No. 1. \$11. Boston Pattern, \$14. dis 40 \$ Shingling. Nos. 1 2 3	Wm. Wileox & Co Norwich Lock Co
8 25 % OR 5 %	816.40 10.00 21.40 24.00 27.00 30.00 33.00	50 36.50	Standard # gross, \$400, dis 2336 \$ Family (T. & S. Mfg. Co.) # gross, \$18,00, dis 24 \$	Saninging, Nos. 123	Yale Lock Mfg. Co.'s "Standard"dis 42 Eagledis 25
R 10 %	(laliperssoo	Compasses	## doz. \$1.00 ## doz. \$1.00	Broad, Nos. 123	Wm. Wileox & Co. Norwich Lock Co. Yale Lock Mr. Co.'s "Standard" dis 42 Eagle dis 25 6 Romer's dis 26 40 8 Concestora dis 60 5 Scandinavian (Moore Bros.) dis 80 5 J. H. McWilliams dis 16
	### 1	dis 25%	Triumpa (T. & S. Mfg. Co.)	Hmmons	J. H. McWilliamsdis 80 %
87.25	Duplex	dis 15@30 \$	Mill E. Buckets, heavy 5 to 10 in. (Duc's Improved).	Claw Nos. 1 2 3. \$ 400 \$7.50 \$8.00 \$8.70 \$8.00 \$0.00 \$1.00 \$	A. E. Dets
00°E 00°E	No. 4, French	2.25, dis 55 \$		Broad, Nos. 5678. 9 dos 16.00 18.00 20.00 22.00 lollins	Barnes Mis. Co
.40 .40	Eurewa	2.50, d18 to %	Emery.—Regular numbers. # 2 50 17, \$12 @ \$20dis 10.5 For Emery and F. F. # 2 50 50 For Emery Paper and Cloth see Sand Paper.	Shingling, Nos. 123	Mallets, Hickory dis 108 10 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
12.00	Duplex # dos acc	o, dis 25#5 %	Entancied and Tinned Ware. Exercises	eck's Champion Bladedis 35 @ 40 6	Penfield Block Co., Lignumvitse & Hickory dis 30 %
1.00	"Worlds Hest " Women No . Street No	× @34.00	Sauce Pans	Claw, Nos. 123. # dos 5.00 5.00 5.00 6.00 6.00 6.00 6.00 6.00	Ment Cutters. Dixon's(P.8. & W.)Nos. 1 2 3 4 # dos. \$1.00 is 10.00 is 10.0
1.00	No. 5 \$80.00. \$2.00 \$3.00 \$1.00 \$1.00 \$2.0	CINE OF REAL	Recutcheon Ping Brees	Half. Nos 1 2 2 dos 6 6	Dixon's (P.S.&W.), Nos. 1 2 3 4 2 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4
onet	Domestic	2.40, dis 45 %	Escatcheons Door Lock	X Fattern, Nos. 1 2 3	Perry's.Nos. 1 2 3 4 4 g'rd 5 g'rd Each\$3.00 4.00 5.00 11.00 13.00 96.00—dis 21/4 5
0.0°%	("npPercussien, W 1000. Hicks & Goldmark's F. L. Waserproof, 1-10's. E. B. Trimmed Edge, 1-10's. E. S. Ground Edge, Central Fire, 1-10's Double Waterproof, 1-10's Musket Waterproof, 1-10's G. D. & S. B.		Wood	Vadsworth'sdis 35 @ 3446 \$ leath Patent	Woodruffs (P. S. & W.)Nos. 100 150 P dos. \$15.00 18.00—dis 35.81 \$
£10 %	E. B. Trimmed Edge, 1-10 3.	650 2	Fean's	Hinges.—Gate, Western # doz 84.00 dis cq %	Hales'
70 %	Double Waterproof, 1-10's	\$I. 10 N	Fenn's Cork Stopsdis 33 % G	ate, N. E. Reveralbie	Draw Cut. Nos. 5 2 6 8 10 Each \$50.00 75.00 80.00 235.00 400.00—dia an
RIO %	Musket Waterproof, 1-10's	8oc 5	Frary's Patent Petroleum	ate. N. Y. State	American
& 10 %	G. D. & S. B. Eley's E. B. Eley's D. Waterproof, Central Fire. D. M. C. W. C. trimmed	330, dis 10 %	West's Patent Key	ate, Common Sense	Enterprise \$5.00 7.00 10.00 25.00 50.00 fa.co
£10 %	U. M. C. F. C. trimmed	dis 15&10 \$	Cork Lined	ate. Shepard's Nos. 1, 2, 3, 10, 20 & 25, dis 50&10 % tolled Blind Hinges	Nos. 10 12 29 2 10,00
8 10 %	U. M. C., Cen. fire ground	dis roles s	J. Sommer's Cork Lined, 1st quality	colled Plate	Kieser's Gem
&io %	Double Waterproof, in 1 10's	40 dis so s	Self-Measuring, Lane 8 # dos. 35.00, dis 208:10 8	Providence " over 12 in., \$4.50 \$ 100 \$ (dis 10 \$	Kieser's Butcher
10 K	Carreidges - Rim List of Jan 1 199	c, dia 3316 %	Files. Pintes	Strap 14 to 36 in. \$5.75 \$ 100 \$dis 10 \$	Pennsylvania
R10 %	Musket, in 1-10's. On Carridges.—Him. List of Jan. 1, 1884—Central Fire. Cards.—dorse and Curry. Ootton	. dia 331/2 %	Files	Colled Plate	Nos 1840 96.00 36.
25 %	Cottonnew list Aug.,	'83, dis 10 %	Butcher's	crew Hook and Eye in dos \$2.45 dis	Mincing Knives,
£10 %	Carpet Streichers. P Cos 32. ast Iron, Steel Points. P dos 32. ookse. P dos 52. ulliard's	44 1	H. Diaston & Sonsdis 40&10 S	Frought Strap and Tdis 608108582 5 for cash	and control of the co
10 % (Cast Iron, Steel Points # dos \$2.00	dis solt s	New American dis & 2015 g Union File Co. dis & 2015 g Huller Bros. Files dis oxio 5 Huller Bros. Files dis oxio 5 Holler Bros. Files dis oxio 5 Holler Bros. Horse Rasps. dis oxio 5 Western dis oxio 5 Western dis oxio 5 Fluting Machines. Cox, 45-inch Rolls b. \$2,50 each dis 3,3 Knox, 6-inch Holls \$3,5 coach dis 3,5	cket	Smith's, w dos, Single, \$2.25; Double, \$3dis 40k10 \$
tio %	Carpet Sweepers.	dia 25%	Heller Bros., Files	tanters	Molasses (in es.
60 %	Carpet Sweepers. Sasell No. 5. per Sissell No. 7 New Drop Pan per Sissell No. 12 Hall Sweeper per Casters.—Bed.	dos. 817 00	Western	agic	Molamen tis ms. dis 70&10 g
50 %]	dissell ao. 12 Hail Sweeperper	dos.842.00	Cnox, 44 inch Rolls	Holsting Apparatus F don \$11, dis 60 %	Chase's Hard Metaldis coato %
40 % E	hallow Socket	dis 50 %	Fagie 34-inch Roll	Moore's Differential Pulley Brock	Lincoln's Pattern
30 %	ale Castersd	is 25 @ 3334	Prown, 45-in., \$3.40; 6-in., \$4.00; 8-in., \$6.50 each, dis 35 8	orton dis socio	Boss Nos. 1 2 3 4 87.00 8.00 9.00 10.00. F dns. dis 60&10&10 4
tro %	Unaters	a reason a	Knox, e-inch Holls	Heeska.—ISITC Cage, Sargent's list. dis dokto \$0 irrd Cage, Reading dis 40 is	Nails
3 1	Cattle Leaders. Iumason, Beckley & Co.'s.	41 G	Peneva Hand Fluter, White Metal # doz \$13, dis 25, \$ Prown Hand Fluter, Nos. 1, \$15; 2, \$12.50; 3, \$10.00	ench Hooks	Nuts and Washers(In lots less than 1003)
10%	lotchkiss. Peck, Stow & W. Codi	CITE TORETO B	hepard Hand Fluter, No. 8s per dog 8ts dis 30 % Cl	othes Line, Sargent's list	Hexagon Nuts
50 % 7	Chain.	18 33554C10 # 8	thepard Hand Fluter, No. 110per doz \$8,75, dis 30 % Hepard Hand Fluter, No. 96per doz \$6,50, dis 30 %	eiling, Sargent's list	Nut Crackers.
A 5 8 7	race, 04-10-5	c dis 40 \$	Combined Finter and Sad Iron # dos \$15.00, dis 30 5 00	oat and Hat, Sargent's listdis control of oat and Hat. Reading	Blake's Pattern
40 % 0	erman Halter Chain, list of Dec. 31, 1881	dia 55 %	Finting Sciences # dos \$10.00, dis 10 %	ire Coat and Hat, Miles	ARMINis on too bales and over 1/4 % # D.
30 % E	Chain. Trace, 05:10-2. Trace, 05:10-2. Trace, 05:10-2. Trace, 05:10-3. Trace,	7-16	rown Hand Fluter, No. 1, \$15; 2, \$11.00; 3, \$10.00 C. \$1 do \$0.5 do \$0.5 do \$1.00 C.	oat and Hat. Residing	Nalls. Stoo &co acc 10.00. \$\psi\$ dos. dis 60&10&10 \$\frac{1}{2}\$ \text{Nalls.} See Trade Report Wire Nalls. See Trade Report Wire Nalls. See Trade Report Wire Nalls. See Trade Report Nalls. See Tra
to #	Toward Holton History 3-10 8/6 4-10 %	7-10 % P	truit and Jelly Presented William School W	rought Staples and Hooks & Staples dis 70% 75 & to \$	Oliers.—Zinc and Tin
10 % B	lensely's Breast, Halter and Bitching	dis solt to %	Fruit and Jelly Presses. Interprise Mrg. Co	tre Screw flooks and Eyesnew list dis 70&10&- 1	Malleable (Hammer's), No. 1, \$3.25; No. 2, \$3.60; No. 3, \$4.00 \$\pi\$ dos. Net.
net G	alvanised Pump Chain	n 756c net B		rice screw Hooks and Eyes new list dis 70£10&- 2 Als 55 5 Iniffetree-Parent	rior's Patent or "Paragon" Zine"dis 6006 & 5
net J	chain. Brass	dis 60/210 %	Acme " 475 4-75 5-35 0.00 7.00 0.00 9.00	ooks and Eyes—Brass	Salieable (Hammer's), No. 1, \$3.25; No. 2, \$3.56; No. 2, \$4.00 \times dos. Net. Prior's l'ateut or "Paragon" Zine"
net B	lue	oss Soc net	Washing Stanley's		
10.5	Chair Lines.—See Lines.	OBS TOC DOL	farking, Chapin's	inton, Plain, \(\psi\) b 2gc 21C 20C 19C 18C dla 30&tro \(\frac{1}{2}\) inton, \(\psi\) b 2gc 22C 21C 20C 19C dla 30&tro \(\frac{1}{2}\) inton, \(\psi\) b 3gc 26C 20C 20C 29C dla 30&tro \(\frac{1}{2}\) inton, \(\psi\) b 3IC 26C 20C 24C 23C dla 40 \(\psi\)	N. Y. Belting and Packing Co dis my
40 % 8	ocket Framing Crossman	dla 65k q g	Wire Wheeler, Madden & Codis 10 \$ Pt	atenam "26c 29c 24c 29c 29cdis 40 % atenam "26c 29c 21c 20c 19cdis 5&7 % jalean. "26c 29c 21c 20c 19c 18cdis 5&7 % j	'aber's Bound Gilt
20 % 8 40 % 8	Chisels. Okte Framing. Crossman. ocket Framing, Arlington Edge Tool Co. ocket Framing, Witherby Tool Co. ocket Firmers, Arlington Edge Tool Co. ocket Firmers, Witherby Tool Co. ocket Firmers, Witherby Tool Co.	dis. 70 @ "	Diamond "Gimletsdis 408:10 % Gi	orthwestern .260 290 210 200 190 180dis 1256 \$ 10000,240 210 190 180 170 160dis 1256 \$ 1	Nxon's Lumber
40 % 8 10 % S	ocket Firmers, Witherby Tool Co	10 % 10 % D	Sarking, Chaphins	1006,	Packing Steam. N.Y. Belting and Packing Co
10 % 8	ocket Corner. ocket Framing and Firmer. Buck Bros ocket Framing and Firmer, Douglass. dis 6 ocket Framing and Firmer, Merrili	.118 27% % D	Couble Cut, Douglass'dis 45&10 % Bu	digewater, 240 210 190 180 170 160dis 30210 %	Figure Nalls.
10 % T	anged Firmersd	dis45 %	Giue Pete.	W Western 26c 23c 21c 20c 19c 18cdis 25 5	trass Head, Sargent's list dis costo trass Head, T. & S. Mig. Co dis 50 4 corcelain Head, Servent's list dis 40 40 50 5 corcelain Head, Judé list dis 314 5 corcelain Head, T. & S. Mig. Co dis 314 5 corcelain Head, T. & S. Mig. Co dis 314 5 corcelain Head, T. & S. Mig. Co dis 314 5 corcelain Head, T. & S. Mig. Co dis 314 5 corcelain Head, T. & S. Mig. Co dis 314 5 corcelain Head, T. & S. Mig. Co dis 314 5 corcelain Head, T. & S. Mig. Co dis 32 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & S. Mig. Co dis 30 5 corcelain Head, T. & Mig. Co dis 30 5 corce
10 % T	anged Firmers. anged Firmers, Butcher's	6.00 to £	amily, Howe's "Eureka"	L Horse Shoe Co., Perkins' Improve.	orcelain Head, f, & S. Mfg. Codis 33% %
40 % T	Clamps.	dis se a Si	Grindstone Fixtures.	alker's Forged, Light, Med. or Heavy . k keg \$3.87%	Pinking froms
10 %	on, Adjustable, Gray's	dis 20 %	ding Hardware Co	ce Awis, Chisois, &ce.	stor Plaiting Machineeach \$15.00. dis 20 1
64 8 1	con, Ad lustable, Gray's. con, Ad lustable, Lambert's. con, Ad lustable, Barw's. con, Ad lustable, Hammer's. con, Ad lustable, Hammer's.	dis solts s	(dum Wada. , M. C. B. E., 11 up	Afformat fee Chisel	Planes and Plane Irons.
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05 % BI	operior	dis 70 %	I Griffin's Hack Saws, completedis socio y lo riffin's Hack Saw, Blades only	mmp b ring ricks, Sargent's \$\psi\$ dos \$1.00 files of the social 5 to 0 dead fricks, Sargent's \$\psi\$ dos \$1.00 files of the 5 to 0 dead fricks, Sargent's \$\psi\$ dos \$1.00 files of the 5 to 0 dead fricks. Sargent's \$\psi\$ dos \$1.00 files of the files of	ench, Second Quality dis 35 5, folding dis 15 6, alley's (Stanley R. & L.Co.) new list, Jan. '70, dis 20510 5, he Stanley (S. R. & L. Co.) new list, Jan. '70, dis 20510 5, he Stanley (S. R. & L. Co.) new list, Jan. '70, dis 20510 5; alley's "Victor" dis 20510 5; alley's "Victor" dis 20510 5 fisher from Butcher's \$2,00 6 5,05 to 5 fisher from S. Butcher's \$5,00 6 5; and from S. Auburn Tool Co. dis 20 6 10 5 lane froms, Auburn Tool Co. dis 20 6 10 5 lane froms, The Globe Mrg. Co. "Baldwin from"
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5 % H	Coopers' Tools. adley sdia	10 @ 20 %	Handles, Door or Thumb Latches. Do Do Do Do Do Do Do Do Do D	or Por. Plated	Post Holle and Tree Augers
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A MANAGED	Ladles. Meiting, Rargent's
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	Round Key Latches dis 30% to \$ Plat Key Latches dis 30% to \$ Russell & Ecwin PADLOCKS. Russell & Ecwin Co
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-	Flat Key Latches Russell & Erwin. **PapLocks** Russell & Erwin. **PapLocks** Russell & Erwin. **PapLocks** Nimick & Brittan Mfg. Dis 45 & 2 \$ cash, from Re **Vised Lock Co. Vised Laist of Dec. 10, 1893. Norwich Lock Co. Vised Laist of Dec. 10, 1893. Norwich Lock Co. Vised Laist of Dec. 10, 1893. Norwich Lock Co. Vised Laist of Dec. 10, 1893. Norwich Lock Co. dis 45 & 2 & cash, from Re **Paper Lock Mfg. Co.'s "Standard" dis 5 & cash, from Re **Paper Lock Mfg. Co.'s "Standard" dis 5 & cash, from Re **Paper Lock Mfg. Co.'s "Standard" dis 5 & cash, from Re **Paper Lock Mfg. Co.'s "Standard" dis 5 & cash, from Re **Paper Lock Mfg. Co.'s "Standard" dis 6 & 5 & cash, from Re **Paper Lock Mfg. Co.'s "Standard" dis 5 & dis 6 & 5 & dis 10 & 5
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a belian an	irass Head, T. & S. Mig. Co
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-	Post tiele and Tree Augers.

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March 27, 1884.	
Pruning Hooks and Shears.	rass a
Pruning Hooks and Shears. Disston's Combined Pruning Hook and Saw. Disston's Pruning Hook. \$\psi\$ dos \$\frac{1}{2}\text{dis 20.5}\$ E. S. Lee & Co. S. Pruner. \$\prec{1}{2}\text{dis 20.5}\$ Fruning Shears. \$\psi\$ dos \$\frac{1}{2}\text{dos 30.5}\$ Fruning Shears. \$\prec{1}{2}\text{dos \$\frac{1}{2}\text{dos 30.5}\$} Henry's Pruning Shears. \$\prec{1}{2}\text{dos \$\frac{1}{2}\text{dos 30.5}\$} Henry's Pruning Shears. \$\prec{1}{2}\text{dos \$\frac{1}{2}\text{dos 30.5}\$} For label Shears. \$\prec{1}{2}\text{dos \$\frac{1}{2}\text{dos 30.5}\$} Fulleys. Hot House and Tackle. \$\prec{1}{2}\text{dos 50.5}\$ Hay Sorew. \$\prec{1}{2}\text{dis 50.5}\$ Hay Fork, \$\prec{1}{2}\text{dos 30.5}\$ Hay Fork, \$\prec{1}{2}\text{dos 10.5}\$ Has \$\prec{1}{2}\text{dos 10.5}\$ Hay Fork, \$\prec{1}{2}\text{dos 10.5}\$ Has \$\prec{1}{2}\text{dos 10.5}\$	oach. ed
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Ball. Riding Door, Wrought Brass, # \$ 35,dis 20 %	Viss, J. Viss, J.
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B, D, for N. E. Hangers Small. Red, Large, 30—Re	Haine
8, D. for N. E. Hangors- Small. Med. Large. 19 roo feet \$3.10 a.70 a.30-mc Hangers- J. R. Torrey Razor Co	liding tiding M wre's
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Haeder & Adamson's Emery # ream \$6.50 @ 11.50 Bartles Best Flint, Nos. oo to 1½ # ream \$4.50 Hartles Best Flint, assorted # ream 4.50	Arkansa Turkey
Barties Beat Flint, No. 3/6 Fream 5.00 35% Columbia Flint, all Nos Fream 5.00 35% Madison Mills Flint, all Nos Fream 3.00	Arkansa Turkey S Turkey S Lake Suj Lake Suj Grindsto
Bartles Emery Paper # ream \$5.50 @ 11.00 Bartles Emery Cloth # ream 18.00 @ 26.00 dis 30 % Crocus Cloth Fram 18.00 @	Joseph I Gem Gold Med "Mirror
New England, same use as D. C. Fall 137, 2 Gage's	Darker.
White Cotton Braided	Rising St Dixon's l Poynton small,
New England, same list as H. & A. Flint. Clis 355 Gage** Clis 45 Sash Cerd. Common	Tinned 8 Tinned A Swedes 7
Seah Leoks. Clark's, No 1, \$10.00; No. 2, \$2.00 per grossdis 33/5 ferguson's	Swedes T American Copper T Swedes E
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Sargent & Co.'s Nos. 20 & 30, Cast Seeldis 56&70 \$ M Sargent & Co.'s No 60, Round Biadedis 60&70 \$ M G y's Double Action Satchet	rams and larket, Br larket, Co larket, Ga larket, Ti tone, Brig tone, Galv tone, Ting
wariett & Co.'s Double Action Clutch # dos, 4 in., \$7.00; 5 in., \$6.00; 6 in., \$9.00—dis 15 \$ Champion	ione, Galvione, Ting inned Broast Steel
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B 60 C C	Bonney's # dos \$10.00, dis 20%; Steagns # dos \$10.00, dis 20%; I yes' No, \$15.00; No. 2, \$12.00 \$\text{dos \$0.00, dis 20%; I yes' No, \$15.00; No. 2, \$12.00 \$\text{dos \$0.00, dis 50.00} }	K K K
e e	Spoons Basting dis 70%; Solid Table and Tea dis 70%; Britannia dis 60%; dis 70%;	E 1
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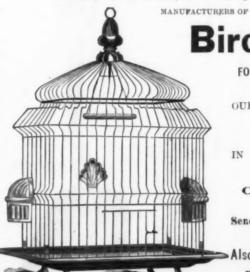
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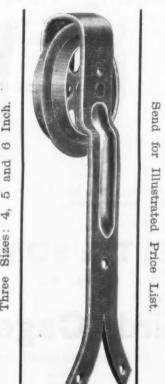
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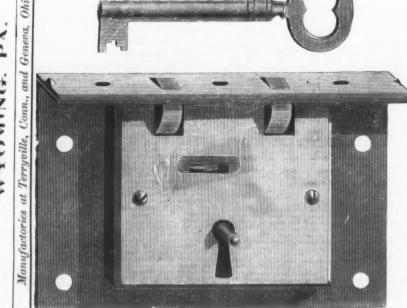
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Chimney Construction

At the meeting of the American Society of Civil Engineers, held in this city on the 5th inst., a number of interesting particulars 5th inst., a number of interesting particulars were given concerning chimneys erected in different parts of the country. Mr. Hiram F. Mills, C. E., among others, had prepared an account relative to the Pacific Mills chimney, at Lawrence, Mass., built by him in 1873, and which, as described by him, consists of an outside octagonal shell, 222 feet high speak the ground with a distinct interest. sists of an outside octagonal shell, 222 feet high above the ground, with a distinct interior core 8 feet 6 inches in diameter, extending 1 foot above the top of the outer shell and 11 feet below the ground. The chimney is founded 19 feet below the ground, upon coarse sand, the foundation being 35 feet square, inclosed by pine sheet piling. The base is concrete, I foot thick; then follows rubble masonry of large pieces of granite in cement, this stonework being 7 feet high. Upon the stonework is placed the brick chimney, the outer shaft being 20 feet wide at the base, and at the top, under the projectat the base, and at the top, under the projecting cornice, 11 feet 6 inches wide. The work is 28 inches thick at the base; at a hight of 12 feet it is 24 inches thick, and continues of 12 feet it is 24 inches thick, and continues so for 18 feet; at 20 feet the thickness measures 20 inches; at 40 feet, 16 inches; at 60 feet, 12 inches, and at the top, 8 inches. The inside core is 2 feet thick to a hight of 27 feet and 1 foot thick for the remaining hight of 54 feet. The top of the chimney consists of cast-iron plates ¾-inch thick. The horizontal flue entering the chimney is 7 feet 6 inches square. The vertical flue of the chimney is a cylinder 8 feet 6 inches in inside diameter, 234 feet high, with walls 20 inches thick at a hight of 20 feet, 16 inches thick at 17 feet, 12 inches thick at 52 feet and 8 inches thick at 145 feet. The foundations were laid in mortar of Rosendale cement tions were laid in mortar of Rosendale cement and sand; the outer shell in mortar of

square feet of grate surface were connected with the chimney with satisfactory results. Between June and September, 1874, the chimney was finished. The approximate weight of the chimney is 2250 long tons, the number of bricks being about 550,000. The chimney is opposite the middle of a line of 28 boilers, and 210 feet distant from them. 28 boilers, and 210 feet distant from them. It was designed to serve for boilers having 700 square feet of grate surface, burning about 13 tons of anthracite coal per square foot of grate surface per hour. The chimney was struck by lightning in June, 1880, after which date a lightning-rod was put up. This consists of a seamless conper tube 4. after which date a lighting-rod was put up.

This consists of a seamless copper tube $t_{\rm g}^{\rm g}$ inch thick, I inch inside diameter, at the top of which are seven points radiating from a ball 4 inches in diameter, the top of the central point being 8 ½ feet above the iron cap. The rod is attached to the chimney by brass castings, and is connected at the botters to a strictly incomplete the control of th tom to a 4-inch iron pipe extending 60 feet to a canal

A description was then read of the chimney of the Merrimack Manufacturing Company, at Lowell, Mass., built under the direction of J. T. Baker, C. E., in 1882. This chimney is founded on a ledge of sandstone. The foundation, 30 feet in diameter is built of granite blocks laid as they came from the quarry. At the surface of the ground is a dressed granite base, 2 feet 6 inches in hight, laid in clear Portland cement, the remainder of the foundation being in Rosendale cement and sand. Upon this base is placed the brickwork, consisting of three cylinders, the outside one 28 feet in diameter, 24 inches thick; the middle one 18 feet in diameter, 8 inches thick; the core 12 feet inside diameter and 16 inches thick. The middle cylinder is carried up vertically The middle cylinder is carried up vertically 75 feet 6 inches; the outside ring has a batter of 10 inches; the per foot to a hight of 100 feet. At the hight of 75½ feet the middle ring connects with the exterior ring, making the masonry at that point 36½ inches thick; it is then 20 inches thick for an additional hight of 60 feet; 16 inches thick for 70 feet, and 12 inches thick from there to the en largement for the chimney head. The core is 12 feet inside diameter to the top, the first is 12 feet inside diameter to the top, the first 100 feet being 16 inches thick; then 12 inches thick for 60 feet; then 8 inches thick for 90 feet, and then 4 inches thick for 29½ feet to the top. It is entirely separate from the outside masonry, except about the doorways and openings for the flues. The core was laid in mortar of lime and sand; the outside shell in lime, cement and sand. On the control of the flues of the shipment and sand. one side of the chimney is a ladder of iron extending from the ground to the top, and on the opposite side is a ¼-inch galvanized-iron wire rope, both ladder and rope being connected with a copper ring having 4 spurs, the central point of which extends 8 feet above the top of the chimney. The bottom of both ladder and rope is connected with a f6-inch water-pipe. Two wrought-iron flues enter the chimney, one measuring 5 feet by fo-inch water-pipe. Two wrought-fron flues enter the chimney, one measuring 5 feet by 6 feet, the other 5 feet by 11 feet. The chimney is constructed to provide for 15 sets of boilers, only 12 now being in use. Each set has 103 % square feet of grate surface, and is rated at 300 horse-power. The weight of the chimney is 3392 tons; 1,101,000 bricks and 6875 cubic feet of stone masonry were used. The cap weights 18,600 pounds. The cost of the chimney was \$18. pounds. The cost of the chimney was \$18,-

A description was next given by Dr. Charles E. Emery of the construction of the chimney, built under his direction, of the Greenwich street boiler-house of the New 4 inches wide. The hight is 220 feet above months, since which time prices maintained high water, 221 feet above the foundation, 217 feet above the basement floor, 201 \$4.75. The chart, we may add, has been feet above the grates of the lower tier of boilers and 141 feet above the grates of the upper tier of boilers. The thickness of the inception and execution.

walls on the interior of the building runs from 5 feet to 20 inches, and on the other sides from 3 feet to 20 inches. The gases for each chimney are taken from 32 boilers of 250 horse-power each. About 1000 tons of coal will be burned daily. It is expected that elevator arrangements will be perfected to receive this amount of coal each night. More trouble is experienced with the ashes than with the coal. Ordinary grate-bars have been used. Clearing is done once every six hours. A new bar that turns on hinges has been used with good results. Mr. P. L. Griswold described a chimney

about 160 feet high, erected in Mexico for a cotton factory, and which had been in use for over 12 years. It was built of apparently sun-dried bricks which seemed to be now in excellent condition. This chimney was built by Indians, and seemed to be very symmet-rical and well made. The bricks were about

Mr. H. W. Brinckerhoff, described a chimney constructed of old rails, which was in successful use in Pennsylvania. It was of the kind generally known as a

It was of the kind generally known as a crinoline chimney.

Mr. Wm. E. Worthen referred to several chimneys built by him, and expressed a doubt as to the necessity of very great hight in chimneys. Mr. J. M. Knap described chimneys constructed in Pittsburgh, and which though of years reducted the party of the construction. which, though of very moderate hight, had given excellent results. The subject was further discussed by Messrs. Cooper, Croes, J. P. Davis, Hamilton, Pteley and Prindle.

California Traffic.

New York maintains the same intimate business connections with San Francisco that she had before the first overland railroad was completed in May, 1869, nearly 15 years ago. More than this, the volume of trans-Rosendale cement, lime and sand, and the flue walls in mortar of lime and sand.

During the winter of 1873, the flue being of feet above the ground, boilers having 452 most noticeable fact in this trade is that the square feet of grate surface were connected those radical changes which were expected. It was believed that the interchange of products by the water route would be greatly diminished, but the fact appears to be quite

via Cape Horn			
1864 \$	5,158,000	1874	\$8,706,600
1865	6,159,100	1875	8,946,700
	5,716,100	1876	8,028,900
1867	6,683,900	1877	5,714,500
1868	3,597,800	1878	
	5,612,400	1879	
1870	1,288,900	1880	5,862,200
	3,854,800	1881	5,527,800
	5,568,700	1882	
	2,711,900	1883	3,757,200
The export	values fo	or the abov	e 20 years

	between the first and second decades as for lows:
	1864-1878. \$54,846,16 1874-1883. 46,412,86
١	Total

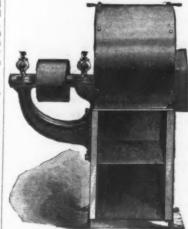
7,037,900. The San Francisco Bulletin says: "The The San Francisco Bulletin says: "The steamers from New York by way of the Isthmus come in as regularly as before, and they come loaded. The ships from New York by way of Cape Horn seem to be as numerous as they were 20 years ago, and they all bring full cargoes Twenty years ago the Panama steamers brought us from ago the Panama steamers brought us from 25,000 to 30,000 tons freight per annum. We presume the 24 steamers last year did as well. These steamers all carry full cargoes back to New York. Twenty years ago from 70 to 80 ships arrived here annually from New York, Boston, Philadelphia, Baltimore, and New Bedford. Last year the number was 60 including only two from Bester. was 60, including only two from Boston.
There has not been a ship in berth at that
port for San Francisco for nearly a year.
Philadelphia is sending us fewer vessels, but Baltimore more.

From the above it would appear that the overland railroads have not so much dioverland rairoads have not so much di-verted trade from its old channels as they have built up a business of their own, much of it from interior points. It is probable, however, that exports from San Francisco by rail at the present day exceed in value the total shipments by sea. The latter com-prise more exclusively, year by year, the coarser and more ponderous classes of mer-chandise.

Fluctuations of B. V. Grade Tin of New York, have issued a chart showing the monthly fluctuations of B. V. grade coke tin plate for 16 years, from 1868 to 1883, inclusive. The fluctuations given are based on the prices at New York, and are represented manner, the diagram being quite compact and yet very plain, when it is considered that so many years and months are covered in a chart only about two feet long by a foot wide. Examining the fluctuations in prices, we are forcibly struck with the fact that in 1868, 1869 and 1870 there was very little change in prices, the fluctuations being not more than a dollar between extreme limits. In 1871 there was a movement upward. hich continued until September, 1872. May and August of 1872 tin plates touched \$12.50 a box at New York. Beginning with September a decline set in, which was con-Greenwich street boiler-house of the New York Steam Company. It being necessary to place it within a very limited area, and to design it for a very large boiler capacity, viz., 16,000 horse-power, this was done by making four stories of boilers. The chimney was, therefore, necessarily located with reference to these boilers, and the plan of the lot. The beach of the Hudson River was at some time at this locality, and the foundation of the chimney was placed in fine, clear beach sand, with some portions of coarser sand and a little stone. The foundation is 1 foot below high water. The chimney is 27 feet 10 inches in the clear inside, and 8 feet 4 inches wide. The hight is 220 feet above months, since which time prices maintained tinuous until December, when tin plates fell to \$9 a box. There was a reaction of \$1.50

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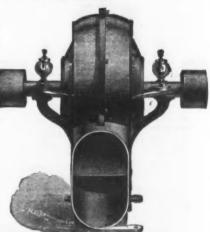
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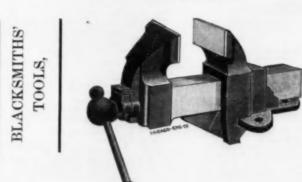
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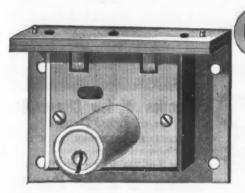
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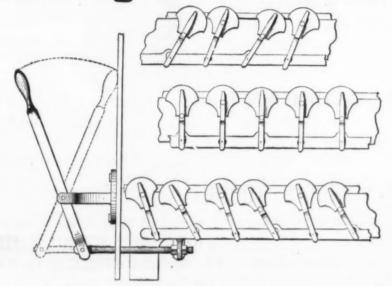
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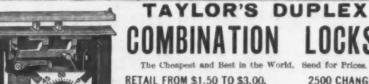
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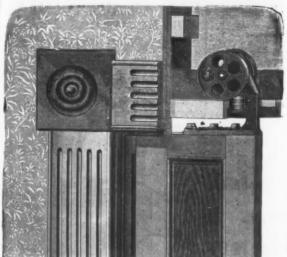
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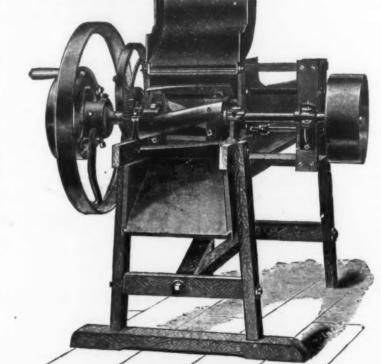
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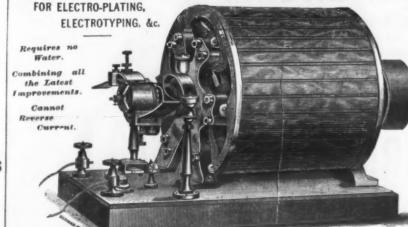
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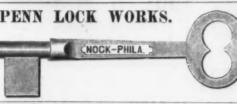
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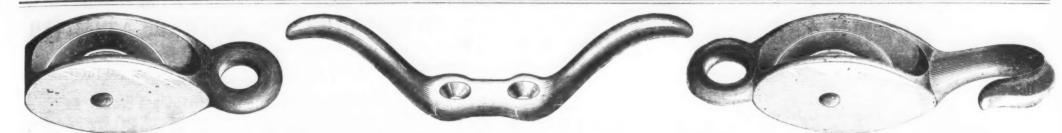
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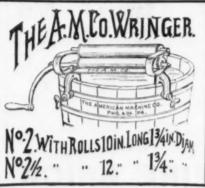
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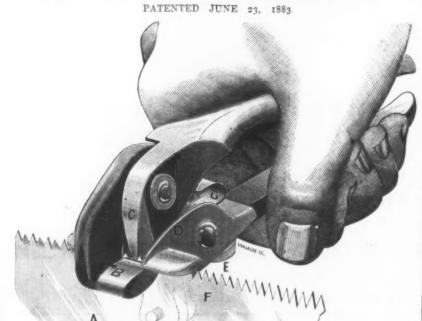
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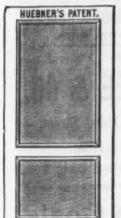
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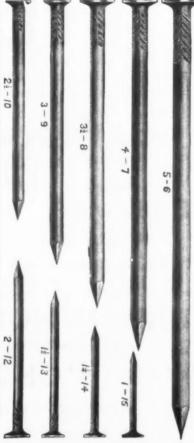
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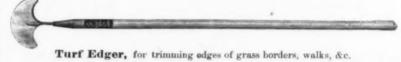
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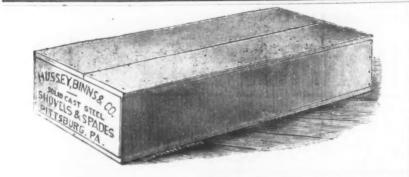


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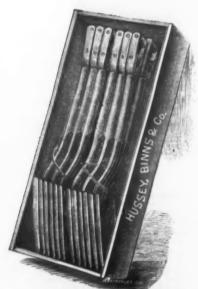
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Yours truly,

(Signed)

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CORRUGATED BOILER FURNACES.



t. They are made of a single steel plate, welded at the bestom, with no joint in contact with the flame.

a. They give 30 per cent. more evaporative

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3. They throw off all scale by their elasticity.

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6. Where a plain furnace of equal length, diameter and thickness collapsed at 225 pounds, the Corrugated stood 1020 pounds per aquare inch.

Since five years 700 steamers were fitted with these furnaces, among them the Alaska, Oregon, City of Rome, Servia, Elbe, Werra, Fulda, &c.

Perfect safety and greatest economy combined.

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NEW AUTOMATIC COMPENSATING PACKING.

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Especial attention is called to the material and workmanship exhibited in these pumps.

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March 27, 1884.
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Anvils. Peter Wrights. * D
Apple Parers. \$5.50 net Penn Apple Parers \$5.50 net Lots of 10 to 25 dosen special prices
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Geneva Fluter
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31 an 36.50 340 300 .dis 40&10 \$ 16.75 19.50 340 300	All shee.s No. 18 and lighter, over 30 inches wide, not less than 2.100 extra. Wood's Putent Flonsished Sheet. st quality (A)	10 20 20
dis schro s dis schro s dis 40 s de, Boxed	Nos. 25 and 26. Lie No. 29. 18c 50 @ 52% & discount. Cont Screen From.	Sho
08 \$8.50 30	134 by 56 by c-16	Bec
08 \$6.00 dis 20 %	134 inch	I
dis 40%	a the to the yarda.c so lbs. o the yarda.sc	one cas bei
dia 1756 S	Splice Joints for 12, 16 and 20-lb. Rali, 400 each; 28 and 30 lb. kali, 50, each; 40 lb., 500 each.	du
dis 17/4 % dis 40@408 % dis 40@408 % dis 50% 408 % B 2/4 @ 30		her
♥ № 2356 " 16560 " 140	156 to 2 by 56 to 56 inch	or
" 130 net	Juniata Nail Flods. 5.4c Norway 5.5c Guard Fron Serticis and Jesticis 6.0c	-1
diama	Drag Bars Section Sec	fro

Drag Bars
Dropper Bars
Cylinder and Landside Iron

T	HE IRON AGE	2 .
0%	See Pittsburgb Trade Report.	1
K %	See Pittaburgh Trade Report. Best Quality Refined Unst Steel. Square, Flat, Octagen and Round. 4 to 2 inches, inclusive	
5 %	% to 2 inches, inclusive	
0%	98 to 2 thenes, inclusive. 05/60 116 and 25/8 to 3 incenes. 10/60 5/4 and 25/8 to 3 incenes. 11/60 7-32 and 45/8 to 5 3-16 and 5/8 to 6 5-34 inch. 25/60 5/4 inch. 25/60	П
0%	3-10 and 55g to 6 "	1
00,	Oil Well Steel Forwings 250	И
0 %	machinery Steel.	1
.25	Ordinary Sizes % to 2 inch. Crucible. Bessemer & Open Hearth	
0 %	Round 40 3160	2
5%	4 and 3% to 6 inches 6e 156c	
io%	3-10 to 110 200	A
0 %	Square, Flat and Octagon, Mc extra through ut the	F
9%	Ilst. Cut to specified lengths, %c extra. Cut to specified lengths, %c extra. Crucible Cast Steel. Open Hearth Cast Steel. Sheet Steel.—Crucible. Bessemer &	1
58	Open Hearth Cast Steel	
0%	Best at One of One Bessemer &	1
0 %	Best. 2d Qual. 3d Qual. Open Hearth.	
3%	To at gaugetic toc &c	
5.5	Auger and Auger Bit. Alice and Auger Bit. Azie Steel for carriages and wagons. 50 Frog Points and Piates 66 Frog Roints and Piates 66 Bit Bars. 56	
6 %	Frog Points and Plates 56	
6%	Side Bars. 6c Pick, plain (hammered). 5c and Mattock, beveled (rolled). 5c 8kate Steel. 5c	٦
160 160 8	Bkate Steel	
0 %	Table Cutlery, plain	
00	BART Steel College	
nn	Spingle subtest to M	
00	Forged Crank Pins and Lathe Spindles 36	
00	Tran Spring Steel Section 1. Sect	
-	Blide Bars, plain	
	Boiler, Fire-Box and Flue Sheets, not less than 3-10	
	Boiler, Fire Box and Flue Sheets, not less the	
nt	Circulars and semi-circulars, when ordered	
of	Grander Con the control of the contr	
ts	Locomotive Tank Steel. 5c Square, Round, Half Round and Flat Bastard. 8	
3-	Square. Round. Half Round and Flat Bastard. 8	
	Square, Round, Half Round and Flat Bastard. 8 inch and over	
5C	Horse and Shoe Rasp	
50 60 90	Borse and Shoe Rasp. 0.5 Spira Taper, cut to lengths. 0.0 It's and over. 0.0 The Cast Steel. 0.0 It's and over. 0.0 The Cast Steel. 0.0	
90 60 70	1X% and over	
90	1 and 13-10x 4 and 5-32, 123-10 and 5-32	M
7C 9C	Solid Safe Cast Steel	F
3C		re
50 50	HOPSe Make Steel out to ton-the County	C
30	Boweled Hos and Showled	•
7C	Seggemen and Co.	
00 50		
50	Tire, 2 -16 thick and above	w
7C 5C	Axle Billets	N
50 00	Sleigh Shoe	-
80 40	Scythe Back Steel	
16	" solral and taper, cut to lengths 40 Toe Calk 396 Toe Calk 396 Plow 396 Axle Billets 596 Axle Billets 596 Cutter Shoe cut to lengths and tapered 496 Grain Drill Bars 46 Rolling Coulter Blanks, cut and punched 996 Rolling Coulter Blanks, cut and punched 996 Rolling Coulter Blanks, cut and punched 996	F
70 70 80	Trasher Steel	
oc	Rolled Hammer Billets	
40	if remitted within to days.	
ic ic	Terms.—Four months: a per cent. discount for cash it remitted within so days. Furnace Floor and Straightening Plates. 1546 Housings and Castings not otherwise specified. 2546 Guide Plates. 346 Spindles and coupling boxes. 346 Spindles and coupling boxes. 2546 Sand Kolls and Plations. targe size. 2546 Pipe Mill Castings Small size. 3 6 Rolling Mill Castings 5 5	
10 20 40	Guide Plates	
40 50	Band Rolls and Pinions, large size	
50 70 80	Pipe Mill Castings.	
16	Spur and Bevel Wheels, large	
30	Pulleys up to 30 inches.	
30	Engine Castings light	
40 50 60	Pipe Mill Castings	
70 8c	8 to 15 in. 4 8 to 40 in. 4 15 to 22 in. 4	
50 60	After Oct. :, 1881, no discounts with he made	
70 60 90	5 to 18. diam. to 30 in. long	
9C	White and Red Lend. Strictly Pure White Lead in Oil, in kegs, 6c.: in 25 B Tin Palla, 19c. 18 B over keg price: 1255 B Tin Palla, 10 P Sover keg price; 1255 B Tin Palla, 10 P Sover keg price; 1255 B Tin Palla, 10 P Sover keg price; 1255 B Cans. 10 P Sover keg B	
70 60 90	Palls, 10 # B over keg price: 12% 5 Tin	I
ic l	Dry White Lead in barrels	
90	Red Lead, very brilliant, in kegs, and barrels	Si
1G	Lead is made.	C
3C	from date of invoice a discount of all per sens will	-
16	Window Gines	
3C 4C	Discount, 60&20 % on Single Strength, 70&5 % on Double.	
90	Prices current, per box of 50 feet.	

	Prices current, per	OOK OF	50 reet	•	
	Single Stre	ngth.			
United	Sizes.	AA.	A	B.	C.
25 5	E 8 to 10 % 15	88.75	\$6,00	87.50	87.0
39 11 3	K 14 to 15 X 24	0.25	8,50	8,00	7.2
40 16 1	K 24 to 30 x 28	10.75	9.75	8,75	7.7
54 14 2	K 34 EO 24 K 30	12.26	10.75	0.00	
90 36 3	K 26 EO R4 X 36	13.00	11.90	9.75	***
79136 3	K 36 to 26 X 44	14.90	13.25	10.75	200
80 96 1	E 46 TO 30 X 50	15.00	14.00	11.25	***
B4 ap 1	K 52 to 30 X 54	1500			***
97 30 1	K 56 to 34 X 56		****	200	115
94 34 3	K 48 to 34 X 60		1555	****	
100 26 1	x 60 to 40 x 60	556-	****	****	***
90 /	Double Strength.	5.5 4.6	***	***	***
25 61	K 8 to 10 X 15	13.25	20.00	** **	
30 11 1	K 14 to 15 X 24	14.50	12.25	11.25	10.5
48 16.3	K 24 80 20 X 28	17.25	13-25	12,50	11.2
54 16 3	K 34 to 24 * 30	17.05	14.74	14-00	* * *
60 %	x 26 to 24 x 36	19.75	17.25	14.50	
70 46 4	20 to 24 X 30	81°00	18,50	15.75	200
NO 16 1	E 36 to 26 X 44	23.25	21.25	17.25	***
84 20 1	x 46 to 3c x 50	84,00	23.50	18/00	***
04 40 7	E 52 to 30 V 54		23.25	19.34	815
An 30 3	K 46 to 34 X 46	87.75	25,00	31.70	***
94 34 2	K 48 to 34 x 60		87.75	34.00	180
100 30 3	K 60 to 40 X 60	33.25	30.00	27-75	***
An adglass m	dditional to per cent. ore than 40 inches will be charged in the	win to	e cha	rged f	or al
н	ubbard, Bakewell	& Co	.'s G	oods.	
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65 E	bouble Bit, Lippincott.			60	25.00
84	James & Co		0000	60	12.0
Deals 7	ools, list	*****			
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HABGIE	s, Cross Cut	*******	A. C. P.	E 008	
	Shovel, Bent, Bored,				2.25
Saws,	Arcular			di	IB 453
" C	cross Cut, H. B. & Co.,				
10 C	ross Cut, Lippincott,	Champ	ion. P	er ft.	-
	nes	*******			-30



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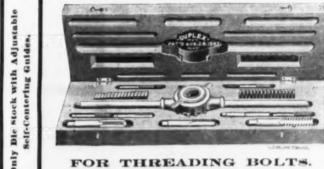
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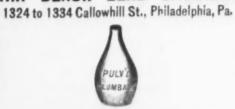
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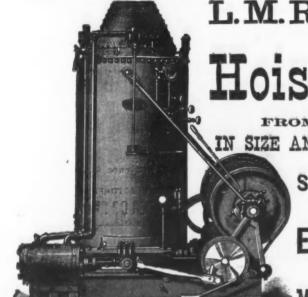
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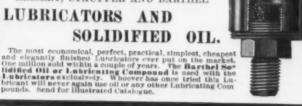
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No. 50, 3ft. No. 6 Wire, with toggle.

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 .22
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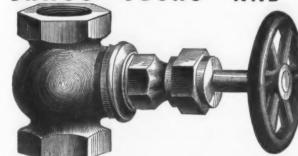
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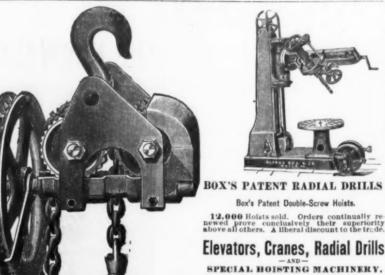
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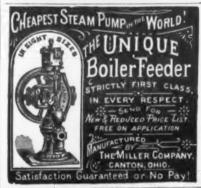
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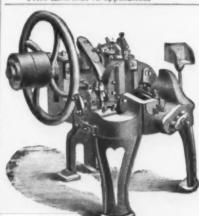
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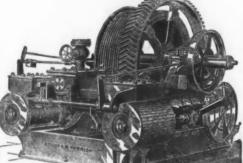


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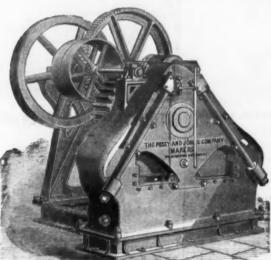
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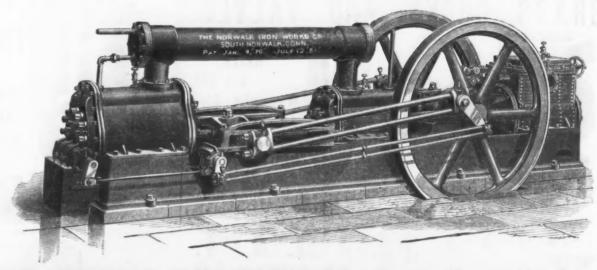
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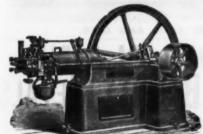


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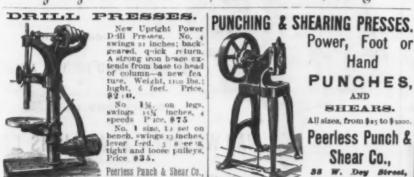
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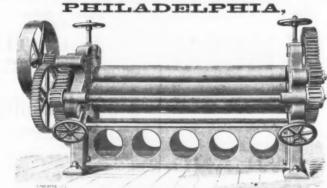
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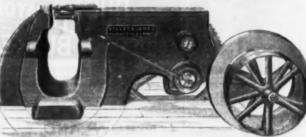


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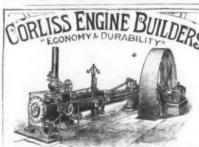
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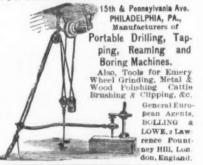
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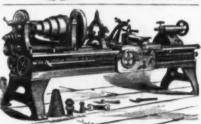
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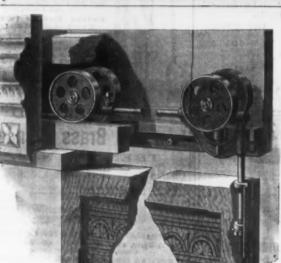
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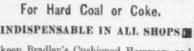
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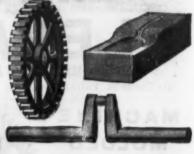
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